State of Utah-DFCM
Utah National Guard
Ogden Armory Roofing Improvements
Ogden, Utah

DFCM Contract Number: 057470 Project Number: 05040470

State of Utah-Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building / Salt Lake City, utah 84114 / 538-3018

General Notes

A. ALL WORK TO BE DONE ACCORDING TO THE REQUIREMENTS OF THE "INTERNATIONAL BUILDING CODE", 2003 EDITION, AND THE FOLLOWING CODES AND STANDARDS:
   1. INTERNATIONAL MECHANICAL CODE: 2003 EDITION.
   2. NATIONAL ELECTRICAL CODE: 2002 EDITION.
   3. INTERNATIONAL PLUMBING CODE: 2003 EDITION.
   4. INTERNATIONAL FIRE CODE: 2003 EDITION.
   5. INTERNATIONAL FUEL GAS CODE: 2003 EDITION.

B. IF CEILINGS/WALLS IN ANY ROOM ARE DAMAGED DUE TO INSTALLATION OF ANY PLUMBING PIPING OR ELECTRICAL CONDUIT, THE CONTRACTOR IS TO PATCH:
   1. WHERE PAINTED: TO PATCH WALLS AND PAINT ENTIRE WALL TO MATCH EXISTING WITH A MINIMUM 3 COATS.

C. ALL COLORS ARE TO BE REVIEWED WITH THE OWNER/ARCHITECT PRIOR TO ORDERING. SUBMIT SAMPLE OF PREFINISHED METAL COLORS TO ARCHITECT FOR REVIEW.

D. CONTRACTOR NOTE: ALL EXISTING CONCRETE WALKS, CURBS AND GUTTERS, SIDEWALKS OR OTHER IMPROVEMENTS INDICATED TO REMAIN ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. IF DAMAGE OCCURS CONTRACTOR WILL BE REQUIRED TO REPAIR OR REPLACE AT HIS EXPENSE.

E. ALL DISCONNECTION AND RECONNECTION OF MECHANICAL UNITS FOR GAS, WATER, POWER, ETC. TO BE DONE BY SUBCONTRACTORS LICENSED IN THEIR TRADE. (CONTRACTOR TO FEILD VERIFY PRIOR TO BIDDING).

F. BUILDING IS PRESENTLY OCCUPIED AND WILL REMAIN OCCUPIED DURING THE COMPLETION OF THIS CONTRACT. CONTRACTOR SHALL BE REQUIRED TO COORDINATE WORK AND TIMES OF ACCESS WITH: SGT. DAVID SCOTT, 1-801-476-3907.

G. ALL CONDUITS, PIPING OR DUCTWORK PENETRATING RATED WALLS OR FLOORS TO BE FIRE SEALED.

H. ROOF SYSTEM TO BE UNDERWRITERS LABORATORIES INC. (UL) FOR CLASS "A" EXTERNAL FIRE EXPOSURE.

J. ASBESTOS CONTAINING MATERIALS, IF ANY HAZARDOUS MATERIALS ARE FOUND OR IF THE GENERAL CONTRACTOR SUSPECTS FINDING HAZARDOUS MATERIALS DURING HIS WORK, **STOP ALL WORK IMMEDIATELY.** THE GENERAL CONTRACTOR SHALL CALL DFCM WHO IN TURN WILL CONTACT THE ABATEMENT CONSULTANTS TO COME IN AND SAMPLE THE MATERIALS FOR INDENTIFICATION. **NO WORK SHOULD CONTINUE UNTIL THE ABATEMENT CONSULTANT HAS CERTIFIED THE AREA TO BE CLEAN OF HAZARDOUS MATERIALS.**

K. ALL PIPING THRU CONCRETE BLOCK WALLS AND CONCRETE FLOORS TO BE FIRE SEALED AROUND OPENING AND NEW PIPE. ALL PENETRATIONS THRU NON-RATED WALLS TO BE SEALED WITH CAULK.

Consultants

MECHANICAL ENGINEER:
SPECTRUM
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
(801) 328-5151

ELECTRICAL ENGINEER:
THOMAS AND KOLKMAN ENGINEERING
64 West 1700 South
Salt Lake City, Utah 84115
(801) 484-8161

STRUCTURAL ENGINEER:
D. GEORGE HANSEN, INC.
254 East First South
Salt Lake City, Utah 84111
(801) 519-2111

DFCM DESIGN AND CODE CRITERIA

(See A/E> Attach and fill in applicable data for each drawing submitted)

International Building Code

Applicable Codes:	Year		Year
International Building Code	2003	International Mechanical Code	2003
Planning & Design Criteria to Prevent Architectural Barriers for the Aged and the Physically Handicapped		International Plumbing Code	2003
		Uniform Energy Code	
		National Electrical Code	2002

A. Occupancy and Group[a]:

Change in Use[b]: Yes ____ No X Mixed Occupancy[c]: Yes ____ No ____

B. Type of Construction (Circle)[d]: I FR, II FR, II (1 HR), II N, III 1 HR, III N, IV HT, V 1 HR, V N

C. Location on Property[e]: F.R. Ext. Walls (Hrs.) _____ Ext. Wall Opening% Protection (Hrs.) _____ Each Occupancy

D. Occupancy separation required (Hrs.)

Sprinklered[f]: Indicate Yes or No

Stories[g]: 1 or multiple

a. Actual Area (ft²)

b. Basic allowable area[h]:

c. Allowable Area Increase due to side yards[i]: N, E, W, S — I: Area (ft²) — I: Area (ft²) — I: Area (ft²)

d. Side yard area increase (ft²)[j]:
Accumulative sub-total (b + d)
Sprinkler[k] area increase (x3 single) (x2 multi)

e. Total Allowable Area[l] for a single story: x 2 for multi-story buildings[m]

f. Ratio[n] = a/e (Actual divided by allowable)

E. Fire-Resistive Requirements[o,p,q,r] (Hrs.) (1 Hr., 2Hr., 3Hr., 4HR., N/A[t].)

Exterior Bearing Walls[s]		Floors - Ceiling Floors	
Interior Bearing Walls[s]		Roofs - Ceiling Roofs	
Exterior Non-bearing Walls[s]		Exterior Doors and Windows	
Structural Frame[s]		Shaft Enclosures	
Partitions- Permanent[t]			

BUILDING IS EXISTING - WORK IS REROOFING BUILDING

Footnotes:
a See IBC Section 1003, Table 1005.2.1 and Chapter 3. For Group, See Section 302.1.
b See UBC Sections 301, 302, 1002 and 3605. Ratio use for Mixed Occupancy Only. See Section 302.1.
c See UBC Chapter 601, Table 6-A with Section 601.5 and Section 504.5.
d See Section 302.3, 504.2, 504.5, and 505> Area separation walls, See Table 3-B.
e See UBC Table 5-A, Sections 503, 505, 602, 603, 604, 605 and 606, Sections 605 and 606 of Chapter 6.
f If the ratio > 1.0 either 1) Area separation walls must be installed of 2 hour or 4 hour rating depending on the Construction Type, or 2) The Construction Type must be upgraded to permit a greater basic allowable area Note> Area separation walls must be clearly shown on the key plan in the Contract Documents.
g See UBC Chapter 7 for Fire-Resistive Standards.

APPROVALS:

User Agency — Date

DFCM Roofing Consultant — Date

DFCM Managing Coordinator for Design and Consulting — Date

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY

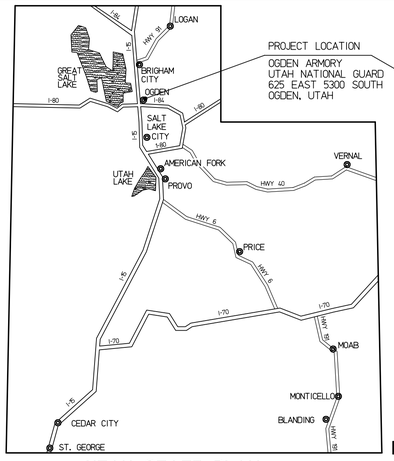
DFCM PRE-BID STAFF REVIEW

Division of Facilities Construction and Management

Architectural (staff)	Date	HVAC	Date
Arch. Specs.	Date	Plumbing	Date
Handicapped	Date	Energy	Date
Program	Date	Electrical	Date
Landscaping	Date	Structural	Date
	Date		Date
OTHER AGENCIES		Fire Marshal	Date
State Department of Health	Date	Agency	Date

REVIEW DOES NOT RELIEVE A/E OF DESIGN LIABILITY

Location Plan



UTAH STATE PLAN

PROJECT LOCATION
OGDEN ARMORY
UTAH NATIONAL GUARD
625 EAST 5300 SOUTH
OGDEN, UTAH

LOCATION MAP
LOGAN, UTAH

Index to Drawings

Harold P. Woodruff Architect\Planner
223 East 800 South
Salt Lake City, Utah 84111
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Mechanical Engineer:
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Phone: 801-328-5151

Electrical Engineer:
Thomas and Kolkman Engineering
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Salt Lake City, Utah 84115
Phone: 801-484-8161

PROJECT TITLE:

Ogden Armory-Roofing Improvements

OWNER:

State of Utah-DFCM

Utah National Guard
Salt Lake City, Utah

MARK	DATE	DESCRIPTION

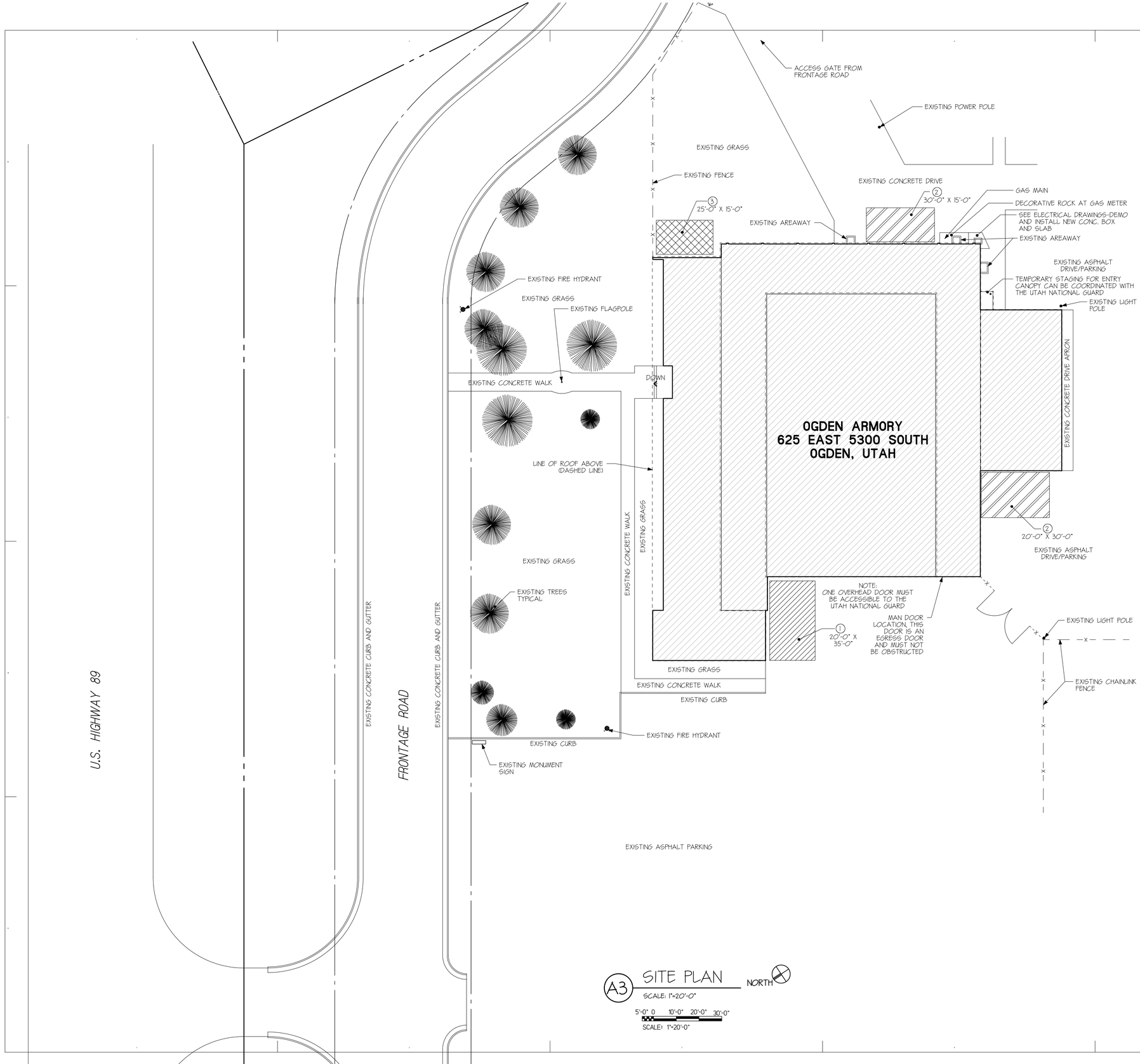
ISSUE TYPE:	CONSTRUCTION DOCS.
ISSUE DATE:	JANUARY 30,2006
DFCM PROJECT NO:	05040470
CONTRACT NO:	057470
CAD PROJECT NO:	N/A
CAD DWG FILE:	N/A
ARCH PROJECT FILE:	0505.prj\0505cvr.db
DRAWN BY:	D.D.
CHK'D BY:	D.D.
COPYRIGHT:	State of Utah

SHEET TITLE

TITLE SHEET

SHEET NUMBER

G-001



A3 SITE PLAN NORTH

SCALE: 1"=20'-0"

5'-0" 0 10'-0" 20'-0" 30'-0"

SCALE: 1"=20'-0"

SITE STAGING NOTES

1. ALL STAGING AREAS.
CONTRACTOR TO NOTIFY SGT. DAVID SCOTT, 1-801-476-3809, OGDEN ARMORY, UTAH NATIONAL GUARD FOR APPROVAL WHEN THESE STAGING AREAS ARE TO BE USED.
IF AREAS OF THE LAWN ARE IN THE STAGING AREA, THE CONTRACTOR WILL VERIFY THAT THE SITE IRRIGATION SPRINKLERS HAVE BEEN SHUT DOWN AND PLYWOOD SHEETING WILL BE LAID DOWN OVER THE LAWN. ALL DAMAGED SPRINKLING EQUIPMENT, DEAD OR DAMAGED LANDSCAPING WILL BE REPLACED. THE WORK AREA WILL BE SECURED BE A TEMPORARY CHAINLINK FENCE. THE CONTRACTOR WILL TAKE STEPS TO PROTECT THE BUILDING WALLS AND EXISTING TREES AND SHRUBBERY.
NOTE:
PROTECT AND MAINTAIN WALLS, WINDOWS, DOORS, LAWNS, VEGETATION, SIDEWALKS, DRIVEWAYS, CONDUITS, WIRES AND ALL OTHER RELATED STRUCTURES AND FIXTURES IN, ON, AROUND OR ADJACENT TO THE PROPERTY.
USE DEBRIES CHUTES, CANVAS TARPS, SINGLE PLY MEMBRANES, PLYWOOD, ETC. AS NEEDED OR REQUIRED TO PROVIDE PROTECTION.
DO NOT THROW MATERIALS FROM THE ROOF
REMOVE ALL MATERIAL, RUBBISH AND DEBRIES FROM THE ROOF AND GROUNDS AND HAUL AWAY EACH DAY. COMPLETELY REMOVE AND THOROUGHLY CLEAN ALL DIRT, DUST, AND STAINS RESULTING FROM DEMOLITION AND CONSTRUCTION FROM THE BUILDING INTERIOR, BUILDING EXTERIOR, GROUNDS AND ADJACENT PROPERTY, ETC.

GENERAL NOTES

1. THE ROOF SYSTEM IS TO BE UNDERWRITERS LABORATORIES INC. (UL) FOR CLASS "A" EXTERNAL FIRE EXPOSURE.
2. THE CONTRACTOR WILL PROVIDE THE UTAH NATIONAL GUARD WITH A WRITTEN ESTIMATED SCHEDULE OF THE REROOFING, STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK AT THE BEGINNING OF THE PROJECT.
3. THE CONTRACTOR WILL COORDINATE WITH SGT. DAVID SCOTT, 1-801-476-3809, UTAH NATIONAL GUARD, OGDEN ARMORY. THE CONTRACTOR WILL PROVIDE 48 HOUR NOTIFICATION BEFORE MOVING INTO A NEW AREA OF REROOFING, STRUCTURAL AND/OR OTHER WORK.
4. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY THE UTAH NATIONAL GUARD 48 HOURS IN ADVANCE OF OVERHEAD WELDING. THE CONTRACTOR WILL BE REQUIRED TO COVER FINISH SURFACES, FURNITURE AND EQUIPMENT TO PROTECT THESE ITEMS.
5. THE CONTRACTOR WILL HAVE A DESIGNATED SAFETY OFFICER ON SITE THAT WILL COORDINATE WITH A SAFETY OFFICER FROM THE UTAH NATIONAL GUARD.
6. THE WORK HOURS WILL BE MONDAY THRU FRIDAY, 6:00 A.M. TO 6:00P.M. THE CONTRACTOR MAY COORDINATE WITH THE UTAH NATIONAL GUARD TO USE OTHER HOURS.
7. ALL PERSONNEL MUST HAVE (2) TWO FORMS OF PICTURE I.D. AND MUST HAVE PROOF OF CITIZENSHIP OR A "GREEN CARD".
8. THE CONTRACTOR WILL BE REQUIRED TO FURNISH A LIST OF PERSONNEL THAT WILL BE ON SITE.
9. NO FIREARMS OR WEAPONS WILL BE ALLOWED ON SITE.

STRUCTURAL STEEL NOTES

1. ALL STRUCTURAL STEEL SHALL BE A-36 WHICH SHALL BE ASTM A-500-B, F_y = 46 KSI AND SHALL COMPLY WITH THE "STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" OF THE A.I.S.C. AND WITH THE A.I.S.C. CODE OF STANDARD PRACTICE.
2. ALL WELDING SHALL CONFORM TO AWS D1.1-85 REQUIREMENTS AND SHALL BE PERFORMED BY WELDERS CERTIFIED FOR THE WELD TO BE DONE. CERTIFICATION SHALL BE FOR THE TYPE OF WELDING BEING PERFORMED AND SHALL BE CURRENT WITHIN THE PAST 12 MONTHS.
3. ALL STRUCTURAL STEEL AND STRUCTURAL STEEL WORK SHALL COMPLY WITH BOTH THE A.I.S.C. "MANUAL OF STEEL CONSTRUCTION" CONTAINING THE SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STEEL BUILDINGS, INCLUDING THE "CODE OF STANDARD PRACTICES" (LATEST EDITION), AND WITH THE I.B.C. 2003 EDITION.
4. ALL STRUCTURAL STEEL AND WELDED JOINTS TO BE PRIMED.

SITE/STAGING KEYED NOTES

1. THE STAGING AREA AT THE NORTH END OF THE BUILDING MAY BE USED DURING THE LENGTH OF THE PROJECT. ONE OVERHEAD DOOR MUST BE AVAILABLE FOR USE AND THE MAN DOOR MUST NOT BE OBSTRUCTED.
2. THE STAGING AREAS BEHIND THE FENCED AREA AT THE ARMORY MAY BE USED BUT MUST BE COORDINATED WITH THE UTAH NATIONAL GUARD.
3. THE STAGING AREA IS BEHIND THE FENCED AREA AND MUST BE COORDINATED WITH THE UTAH NATIONAL GUARD. THE SITE IRRIGATION MUST BE SHUT DOWN AND LANDSCAPING MUST BE PROTECTED.

NOTE:
SEE GENERAL SITE STAING NOTES ABOVE.

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State of Utah-DFCM
Utah National Guard
Salt Lake City, Utah

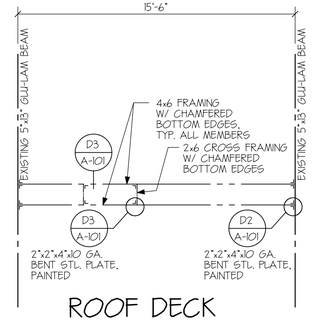
DATE	BY	DESCRIPTION

PROJECT NO.	05040470
DRAWING NO.	057039
CHECKED BY	N/A
CHECKED BY	N/A
DRAWING FILE	0505.pj\0505.db\cps.dr
DESIGNED	D.D.
DRAWN	D.D.
CHECKED	State of Utah

SITE/STAGING PLAN

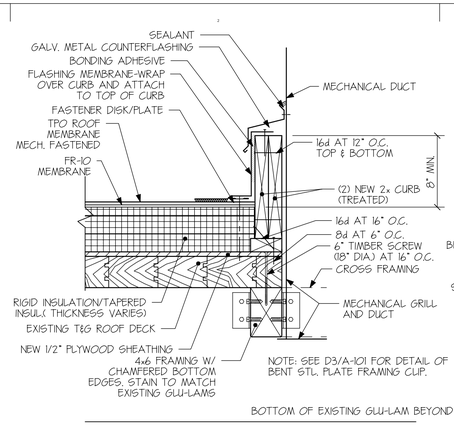
G-002

SHEET 2 OF 19



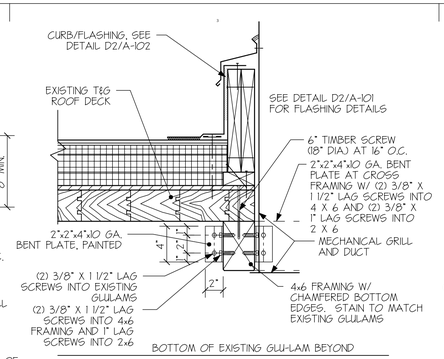
D1 ROOF DECK OPENING FRAMING

SCALE: 1/4"=1'-0"



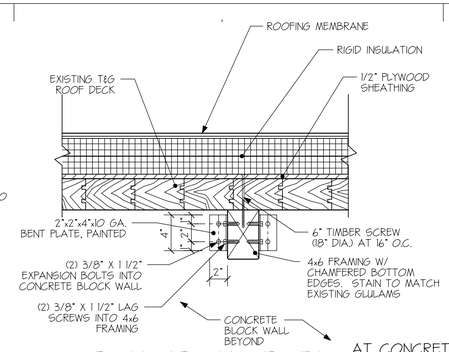
D2 FLASHING DETAIL CURB

SCALE: 1 1/2"=1'-0"



D3 REINFORCING DETAIL

SCALE: 1 1/2"=1'-0"



D4 REINFORCING DETAIL AT CONCRETE BLOCK WALL

SCALE: 1 1/2"=1'-0"

NOTE:
THE CONTRACTOR WILL REMOVE ALL EXISTING WINDOWS AND FURNISH AND INSTALL NEW EXTERIOR WINDOWS.

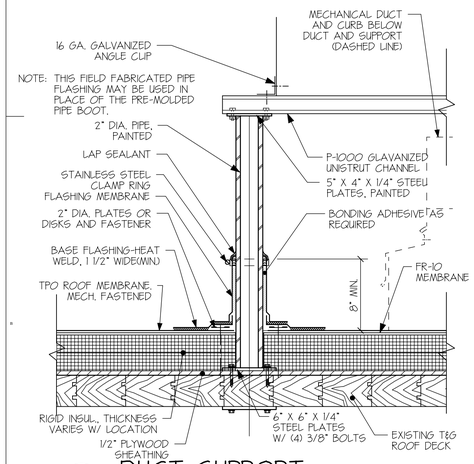
1. ALL EXTERIOR WINDOWS WILL BE REPLACED (EXCEPT ENTRANCE DOORS AND WINDOWS).
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THE WINDOW DIMENSIONS AND FIELD VERIFYING EXISTING CONDITIONS.
3. THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES AND TRIM FOR A COMPLETE INSTALLATION.
4. THE CONTRACTOR WILL REPAIR AND PAINT ANY DAMAGE THAT OCCURS DURING WINDOW REMOVAL OR INSTALLATION.
5. THE NEW WINDOWS WILL BE ALUMINUM STOREFRONT WITH 1" INSULATED GLAZING AS SHOWN ON SHEETS A-801 AND A-802.

0 6" 12"
SCALE: 3"=1'-0"

12" 6" 0 1'-0"
SCALE: 1 1/2"=1'-0"

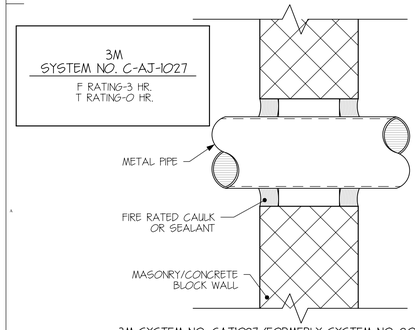
12" 6" 0 1'-0" 2'-0" 3'-0"
SCALE: 3/4"=1'-0"

12"6"0 1'-0" 5'-0" 10'-0"
SCALE: 1/4"=1'-0"



B1 DUCT SUPPORT

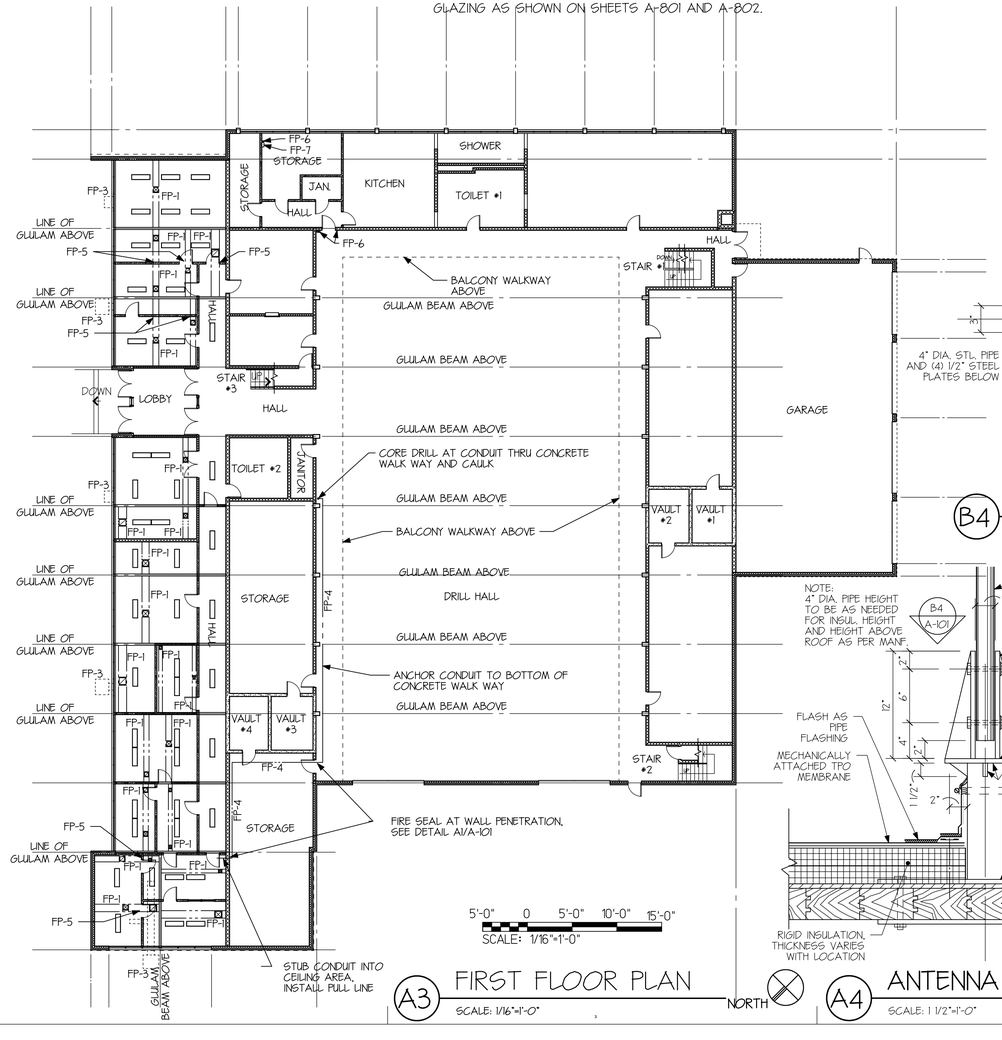
SCALE: 1 1/2"=1'-0"



3M SYSTEM NO. CAJ1027 (FORMERLY SYSTEM NO. 202):
F RATING-3 HR.

A1 PENETRATION FIRESTOP

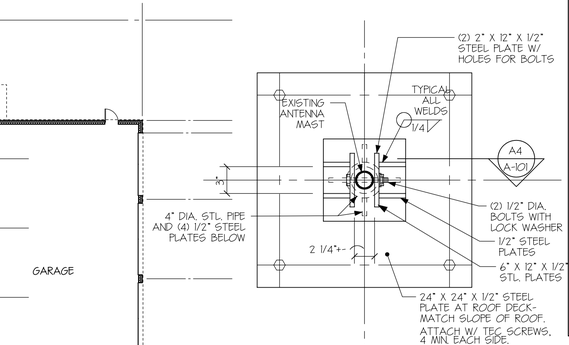
SCALE: 3"=1'-0"



A3 FIRST FLOOR PLAN

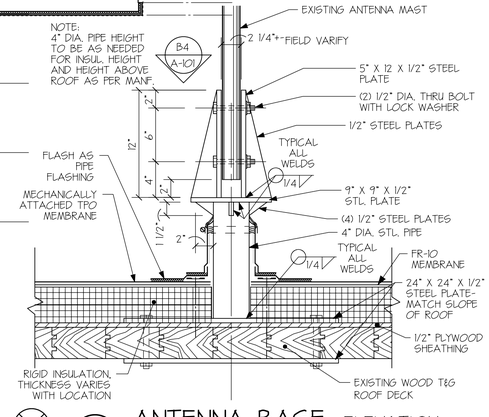
SCALE: 1/16"=1'-0"

NORTH



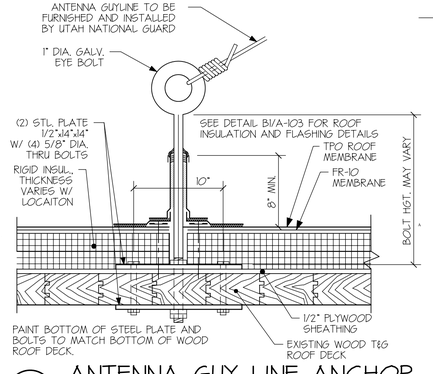
B4 ANTENNA BASE PLAN

SCALE: 1 1/2"=1'-0"



A4 ANTENNA BASE ELEVATION

SCALE: 1 1/2"=1'-0"



A5 ANTENNA GUY LINE ANCHOR

SCALE: 1 1/2"=1'-0"

KEYED NOTES

FP-1. ROOF DECK REINFORCING FOR SUPPLY AND RETURN AIR DUCT PENETRATIONS, SEE DETAIL D1/A-101 FOR TYPICAL ROOF DECK PENETRATION FRAMING PLAN. SEE MECHANICAL DRAWINGS FOR LOCATION OF DUCT PENETRATIONS. COORDINATE WITH EXISTING LIGHT FIXTURE LOCATIONS. 4 X 6 FRAMING FROM EXISTING GULAAM BEAM TO EXISTING GULAAM BEAM, 2 X 6 FRAMING BETWEEN NEW 4 X 6 FRAMING AROUND DUCT AND GRILL. SEE DETAIL D3/A-101 FOR ANCHORAGETO EXISTING GULAAM BEAMS, DETAIL D4/A-101 ANCHORAGE TO CONCRETE BLOCK WALL. SEE DETAIL D2/A-101 FOR CURB FLASHING.
ALL WOOD FRAMING TO BE STAINED TO MATCH EXISTING T&G WOOD ROOF DECK AND EXISTING GULAAM BEAMS. PAINT ALL BENT STEEL PLATES AND BOLT HEADS.

FP-2. CONRETE ROOF DECK REINFORCING FOR SUPPLY AND RETURN AIR DUCT PENETRATIONS. SEE MECHANICAL DRAWINGS FOR LOCATION OF DUCT PENETRATIONS. LOCATE DUCT PENETRATIONS BETWEEN CONCRETE PAN JOISTS IN ROOF STRUCTURE.
SAW CUT OPENINGS IN 3" CONCRETE DECK AND INSTALL 5" X 3 1/2" X 5/16" STEEL ANGLES AROUND OPENINGS WITH (2) 1/2" DIA. STUDS WELDED TO EACH STEEL ANGLE LEG. SEE DETAIL D1/A-102. SEE DETAIL D1/A-102 FOR CURB FLASHING.
DUCTS TO BE EXTENDED TO CEILING BELOW AND GRILLS INSTALLED IN CEILINGS.

FP-3. REMOVE EXISTING WINDOW MOUNTED EVAPORATIVE AIR COOLER OR REFRIDGERANT AIR CONDITIONER FROM EXISTING WINDOW. DISCONNECT ALL SERVICES FROM UNIT. INSTALL NEW GLAZING IN EXISTING WINDOW FRAMES.
ALL MECHANICAL UNITS TO BE RETURNED TO THE UTAH NATIONAL GUARD.

FP-4. NEW 2" CONDUIT WITH PULL LINE TO BE INSTALLED UNDER ROOF DECK. SEE DETAIL A1/A-103. SEE ELECTRICAL DRAWINGS. THE INTERIOR ANTENNA CONDUIT IS TO BE PAINTED WERE EXPOSED. THE CONDUIT IS TO RUN UNDER THE ROOF DECK FROM THE PULL BOX TO THE CONCRETE BLOCK WALL, DOWN THE CONCRETE BLOCK WALL, THRU SECOND FLOOR BALCONY WALKWAY (CORE DRILL CAULK), ALONG CONCRETE BLOCK WALL (UNDER BALCONY WALKWAY), THRU CONCRETE BLOCK WALL TO STORAGE ROOM, ANCHORED TO STORAGE ROOM CEILING AND ALONG WALL, THRU CONCRETE BLOCK WALL TO RADIO ROOM AT END OF CORRIDOR.
ALL CONCRETE BLOCK WALL PENETRATIONS ARE TO BE FIRE SEALED AS PER DETAIL A1/A-101.
THE UTAH NATIONAL GUARD WILL REMOVE AND REINSTALL THE ANTENNA CABLES.

FP-5. NEW 4x6 ROOF DECK REINFORCING TO PASS THRU EXISTING WOOD STUD FRAMED WALL. CAREFULLY REMOVE EXISTING GYPSUM BOARD AND EXISTING FRAMING TO INSTALL NEW 4x6 ROOF DECK REINFORCING. INSTALL NEW NAILERS AROUND WALL PENETRATION. REPAIR WALL FINISH AND PAINT. INSTALL 1x3 TRIM AROUND 4x6 ROOF DECK REINFORCING AND WALL. SEE D3/A-501.

FP-6. NEW CONDUIT THRU FLOOR OR WALL, PAINTED. FIRE SEAL PENETRATION THRU CONCRETE FLOOR OR CONCRETE BLOCK WALL. SEE DETAIL A1/A-101.

FP-7. NEW ELECTRICAL PANEL, SEE ELECTRICAL DRAWINGS.

NOTE:

1. SEE ELECTRICAL DRAWINGS FOR ALL CONDUIT AND ELECTRICAL REQUIREMENTS.
2. FIRE SEAL ALL CONDUIT PENETRATIONS THRU CONCRETE FLOORS AND CONCRETE BLOCK WALLS, SEE DETAIL A1/A-101.
3. PAINT ALL EXPOSED CONDUITS TO MATCH ADJACENT WALL COLOR.

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State of Utah-DFCM

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MARK	DATE	DESCRIPTION
ISSUE TYPE:		CONSTRUCTION SHEET
ISSUE DATE:		JANUARY 30, 2006

DFCM PROJECT NO.	05040470
CONTRACT NO.	057470
CAD PROJECT NO.	N/A
CAD DRAWING FILE	N/A
ARCHITECT FILE	0505.p\0505.db\apf1.dr
DRAWN BY:	D.D.
CHECK BY:	D.D.
COPYRIGHT	State of Utah

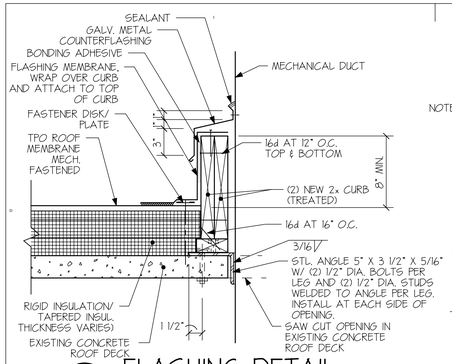
SHEET TITLE

FIRST FLOOR PLAN

SHEET NUMBER

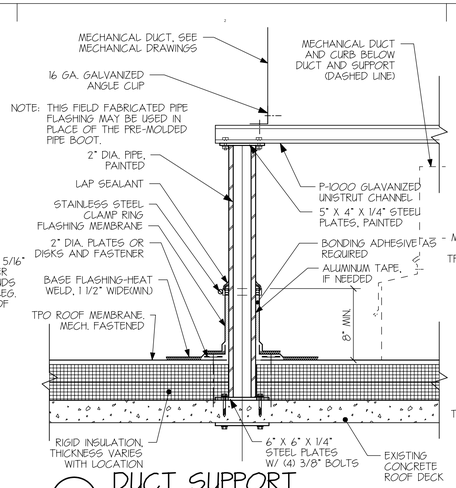
A-101

SHEET 3 OF 19



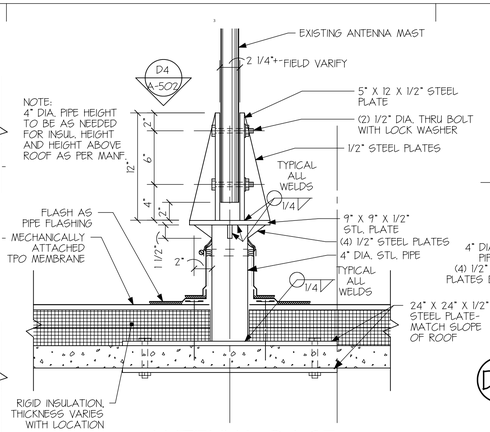
D1 FLASHING DETAIL

SCALE: 1 1/2"=1'-0"



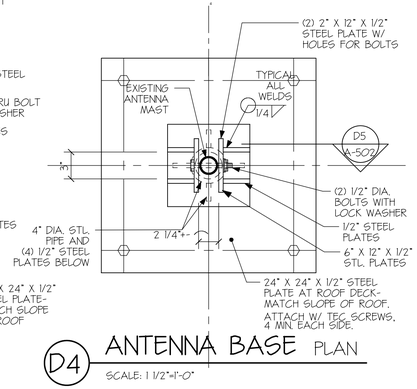
D2 DUCT SUPPORT

SCALE: 1 1/2"=1'-0"



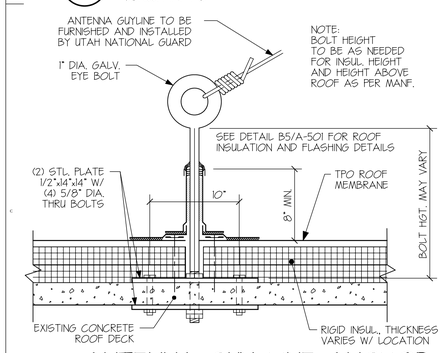
D3 ANTENNA BASE ELEVATION

SCALE: 1 1/2"=1'-0"



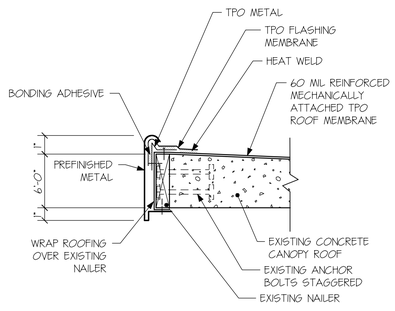
D4 ANTENNA BASE PLAN

SCALE: 1 1/2"=1'-0"



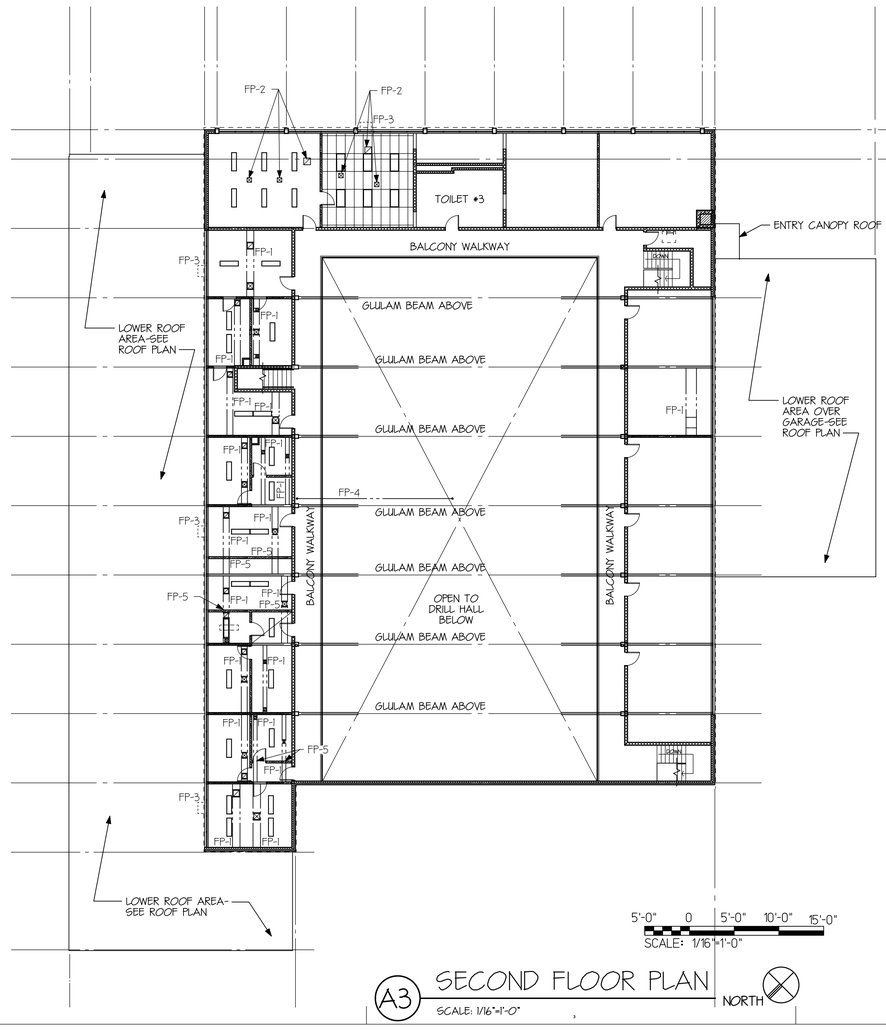
C1 ANTENNA GUY LINE ANCHOR

SCALE: 1 1/2"=1'-0"



B1 FASCIA FLASHING DETAIL

SCALE: 1 1/2"=1'-0"



A3 SECOND FLOOR PLAN

SCALE: 1/16"=1'-0"

NOTE:
THE CONTRACTOR WILL REMOVE ALL EXISTING WINDOWS AND FURNISH AND INSTALL NEW EXTERIOR WINDOWS.

1. ALL EXTERIOR WINDOWS WILL BE REPLACED (EXCEPT ENTRANCE DOORS AND WINDOWS).
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THE WINDOW DIMENSIONS AND FIELD VERIFYING EXISTING CONDITIONS.
3. THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES AND TRIM FOR A COMPLETE INSTALLATION.
4. THE CONTRACTOR WILL REPAIR AND PAINT ANY DAMAGE THAT OCCURS DURING WINDOW REMOVAL OR INSTALLATION.
5. THE NEW WINDOWS WILL BE ALUMINUM STOREFRONT WITH 1" INSULATED GLAZING AS SHOWN ON SHEETS A-801 AND A-802.

KEYED NOTES

FP-1. ROOF DECK REINFORCING FOR SUPPLY AND RETURN AIR DUCT PENETRATIONS, SEE DETAIL D1/A-102 FOR TYPICAL ROOF DECK PENETRATION FRAMING PLAN. SEE MECHANICAL DRAWINGS FOR LOCATION OF DUCT PENETRATIONS. COORDINATE WITH EXISTING LIGHT FIXTURE LOCATIONS. 4 X 6 FRAMING FROM EXISTING GULAM BEAM TO EXISTING GULAM BEAM, 2 X 6 FRAMING BETWEEN NEW 4 X 6 FRAMING AROUND DUCT AND GRILL. SEE DETAIL D3/A-102 FOR ANCHORAGETO EXISTING GULAM BEAMS, DETAIL D4/A-102 ANCHORAGE TO CONCRETE BLOCK WALL. SEE DETAIL D2/A-102 FOR CURB FLASHING.
ALL WOOD FRAMING TO BE STAINED TO MATCH EXISTING T&G WOOD ROOF DECK AND EXISTING GULAM BEAMS. PAINT ALL BENT STEEL PLATES AND BOLT HEADS.

FP-2. CONRETE ROOF DECK REINFORCING FOR SUPPLY AND RETURN AIR DUCT PENETRATIONS. SEE MECHANICAL DRAWINGS FOR LOCATION OF DUCT PENETRATIONS. LOCATE DUCT PENETRATIONS BETWEEN CONCRETE PAN JOISTS IN ROOF STRUCTURE.
SAW CUT OPENINGS IN 3" CONCRETE DECK AND INSTALL 5" X 3 1/2" X 5/16" STEEL ANGLES AROUND OPENINGS WITH (2) 1/2" DIA. STUDS WELDED TO EACH STEEL ANGLE LEG. SEE DETAIL D1/A-103. SEE DETAIL D1/A-103 FOR CURB FLASHING.
DUCTS TO BE EXTENDED TO CEILING BELOW AND GRILLS INSTALLED IN CEILINGS.

FP-3. REMOVE EXISTING WINDOW MOUNTED EVAPORATIVE AIR COOLER OR REFRIDGERANT AIR CONDITIONER FROM EXISTING WINDOW. DISCONNECT ALL SERVICES FROM UNIT. INSTALL NEW GLAZING IN EXISTING WINDOW FRAMES.
ALL MECHANICAL UNITS TO BE RETURNED TO THE UTAH NATIONAL GUARD.

FP-4. NEW 2" CONDUIT WITH PULL LINE TO BE INSTALLED UNDER ROOF DECK. SEE DETAIL A1/A-104.
SEE ELECTRICAL DRAWINGS. THE INTERIOR ANTENNA CONDUIT IS TO BE PAINTED WERE EXPOSED. THE CONDUIT IS TO RUN UNDER THE ROOF DECK FROM THE PULL BOX TO THE CONCRETE BLOCK WALL, DOWN THE CONCRETE BLOCK WALL, THRU SECOND FLOOR BALCONY WALKWAY (CORE DRILL CAULK), ALONG CONCRETE BLOCK WALL (UNDER BALCONY WALKWAY), THRU CONCRETE BLOCK WALL TO STORAGE ROOM, ANCHORED TO STORAGE ROOM CEILING AND ALONG WALL, THRU CONCRETE BLOCK WALL TO RADIO ROOM AT END OF CORRIDOR.
ALL CONCRETE BLOCK WALL PENETRATIONS ARE TO BE FIRE SEALED AS PER DETAIL A1/A-102.
THE UTAH NATIONAL GUARD WILL REMOVE AND REINSTALL THE ANTENNA CABLES.

FP-5. NEW 4x6 ROOF DECK REINFORCING TO PASS THRU EXISTING WOOD STUD FRAMED WALL. CAREFULLY REMOVE EXISTING GYPSUM BOARD AND EXISTING FRAMING TO INSTALL NEW 4x6 ROOF DECK REINFORCING. INSTALL NEW NAILERS AROUND WALL PENETRATION. REPAIR WALL FINISH AND PAINT. INSTALL 1x3 TRIM AROUND 4x6 ROOF DECK REINFORCING AND WALL. SEE D3/A-501.

FP-6. NEW CONDUIT THRU FLOOR OR WALL, PAINTED. FIRE SEAL PENETRATION THRU CONCRETE FLOOR OR CONCRETE BLOCK WALL. SEE DETAIL A1/A-101.

FP-7. NEW ELECTRICAL PANEL, SEE ELECTRICAL DRAWINGS.

NOTE:

1. SEE ELECTRICAL DRAWINGS FOR ALL CONDUIT AND ELECTRICAL REQUIREMENTS.
2. FIRE SEAL ALL CONDUIT PENETRATIONS THRU CONCRETE FLOORS AND CONCRETE BLOCK WALLS, SEE DETAIL A1/A-101.
3. PAINT ALL EXPOSED CONDUITS TO MATCH ADJACENT WALL COLOR.

0 6" 12"
SCALE: 3"=1'-0"

12" 6" 0 1'-0"
SCALE: 1 1/2"=1'-0"

12" 6" 0 1'-0" 2'-0" 3'-0"
SCALE: 3/4"=1'-0"

12"6"0 1'-0" 5'-0" 10'-0"
SCALE: 1/4"=1'-0"

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PROJECT TITLE:

Ogden Armory-Roofing Improvements

OWNER:

State of Utah-DFCM
Utah National Guard
Salt Lake City, Utah

NAME	DATE	DESCRIPTION

BASE TYPE: CONSTRUCTION BASE

ISSUE DATE: JANUARY 18, 2006

DFCM PROJECT NO.	0504047O
CONTRACT NO.	057470
CAD PROJECT NO.	N/A
CAD DWG. FILE	N/A
ARCH PROJECT FILE	0505.pj\0505.db\apf2.dr
DRAWN BY:	D.D.
CHK'D BY:	D.D.
COPYRIGHT:	State of Utah

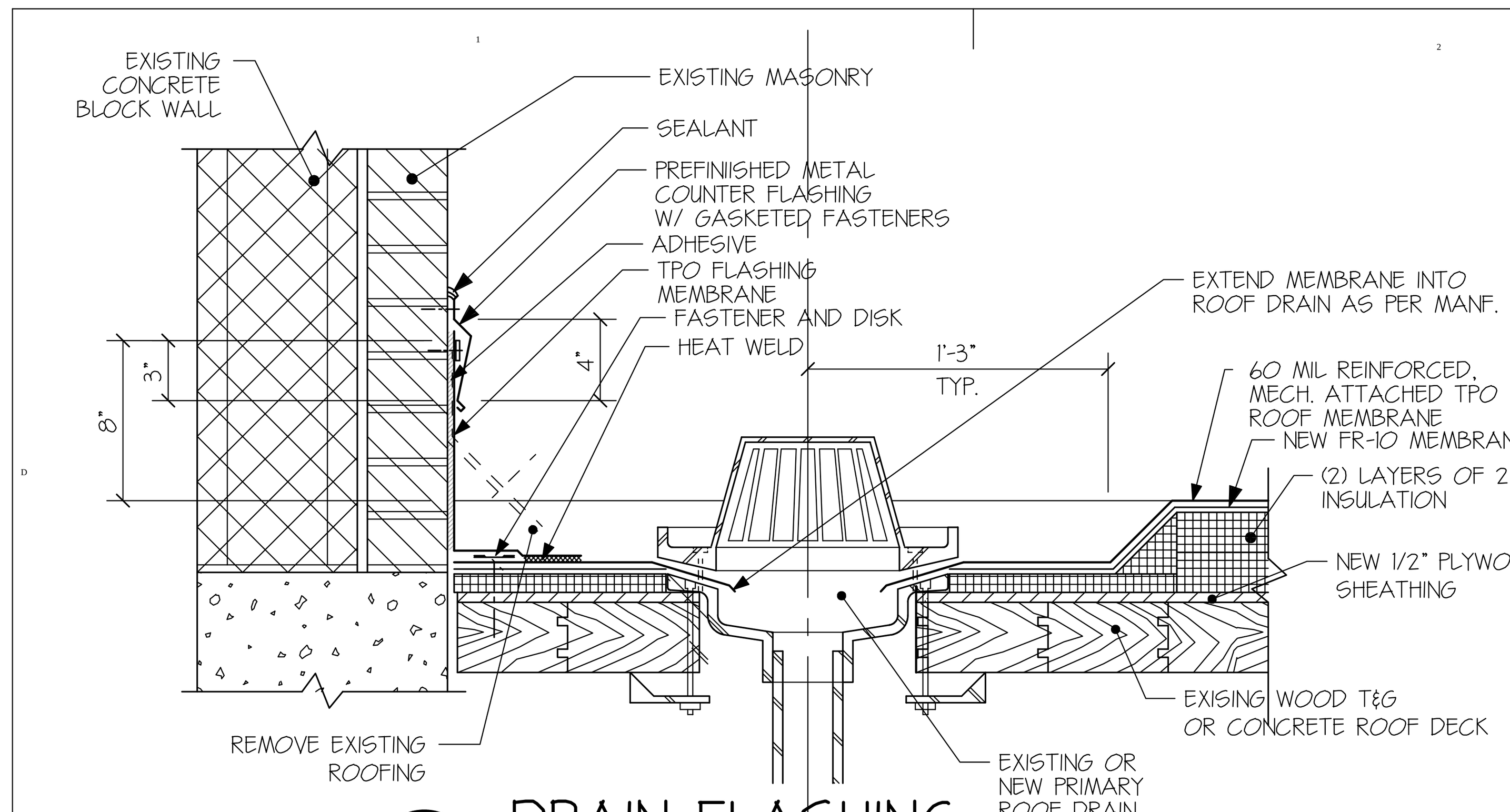
SHEET TITLE

SECOND FLOOR PLAN

SHEET NUMBER

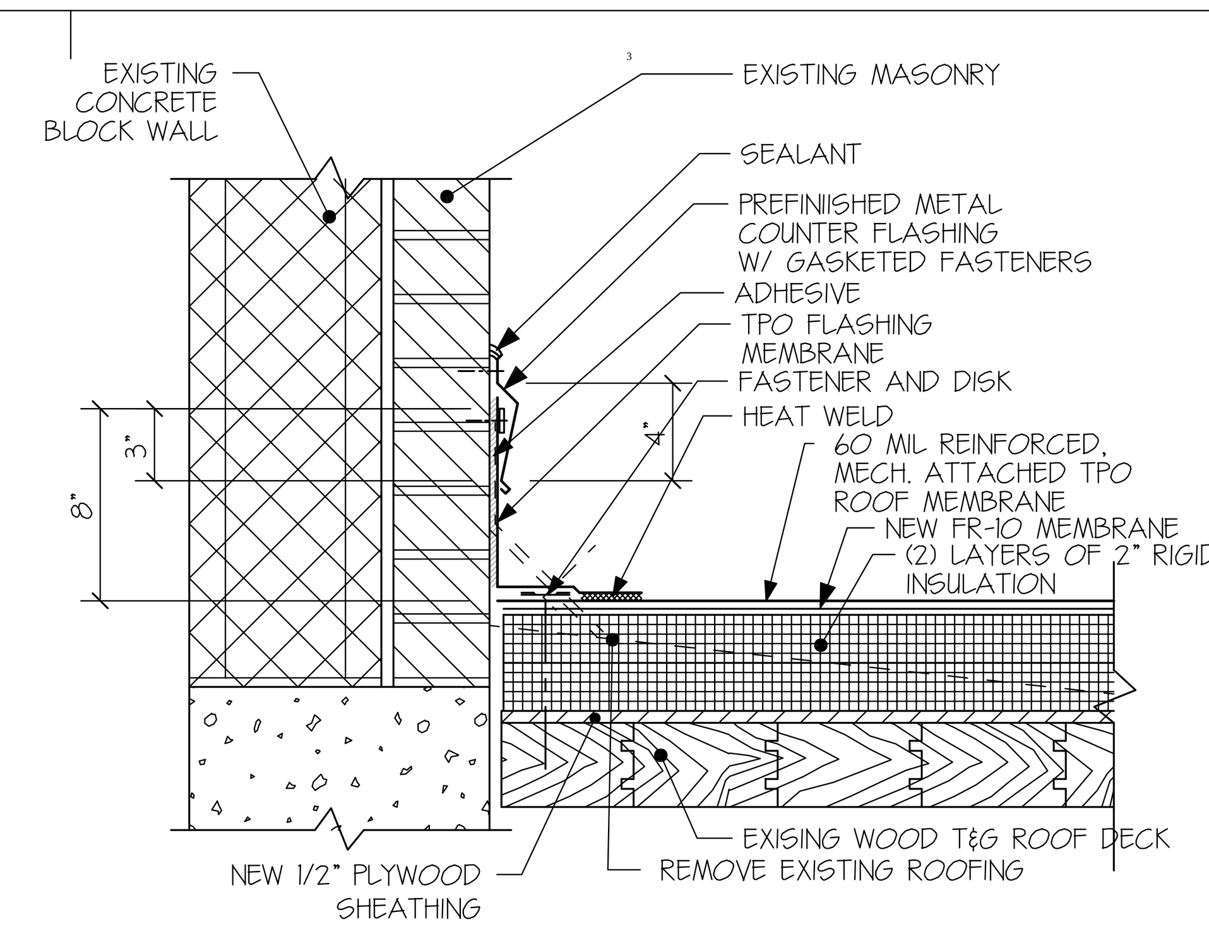
A-102

SHEET 4 OF 19



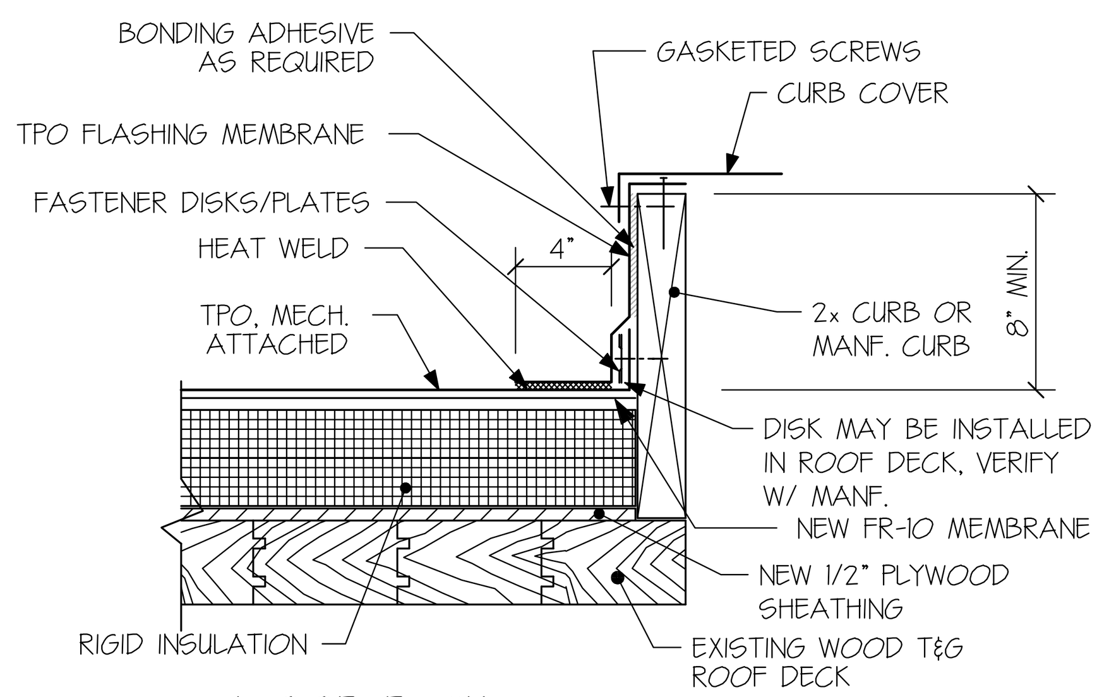
D1 DRAIN FLASHING

SCALE: 1 1/2"=1'-0"



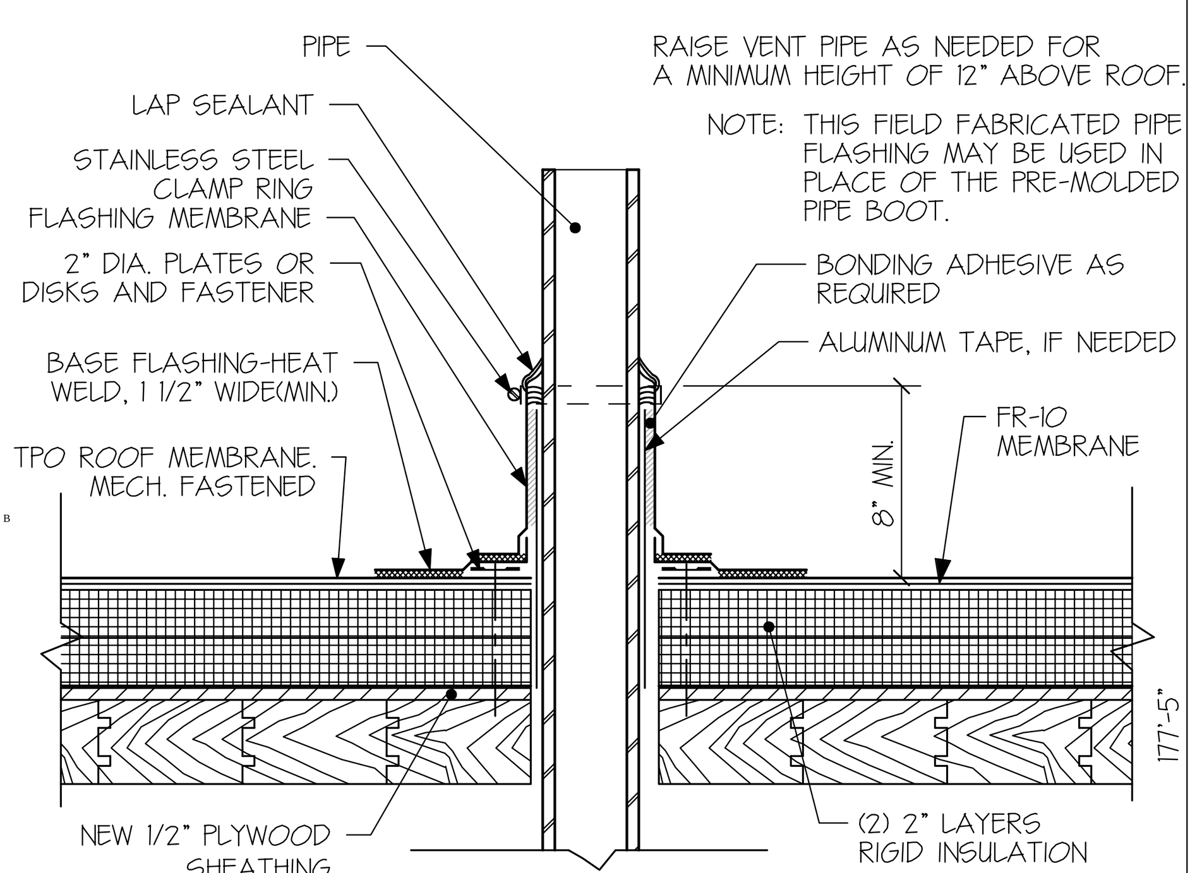
D3 WALL FLASHING

SCALE: 1 1/2"=1'-0"



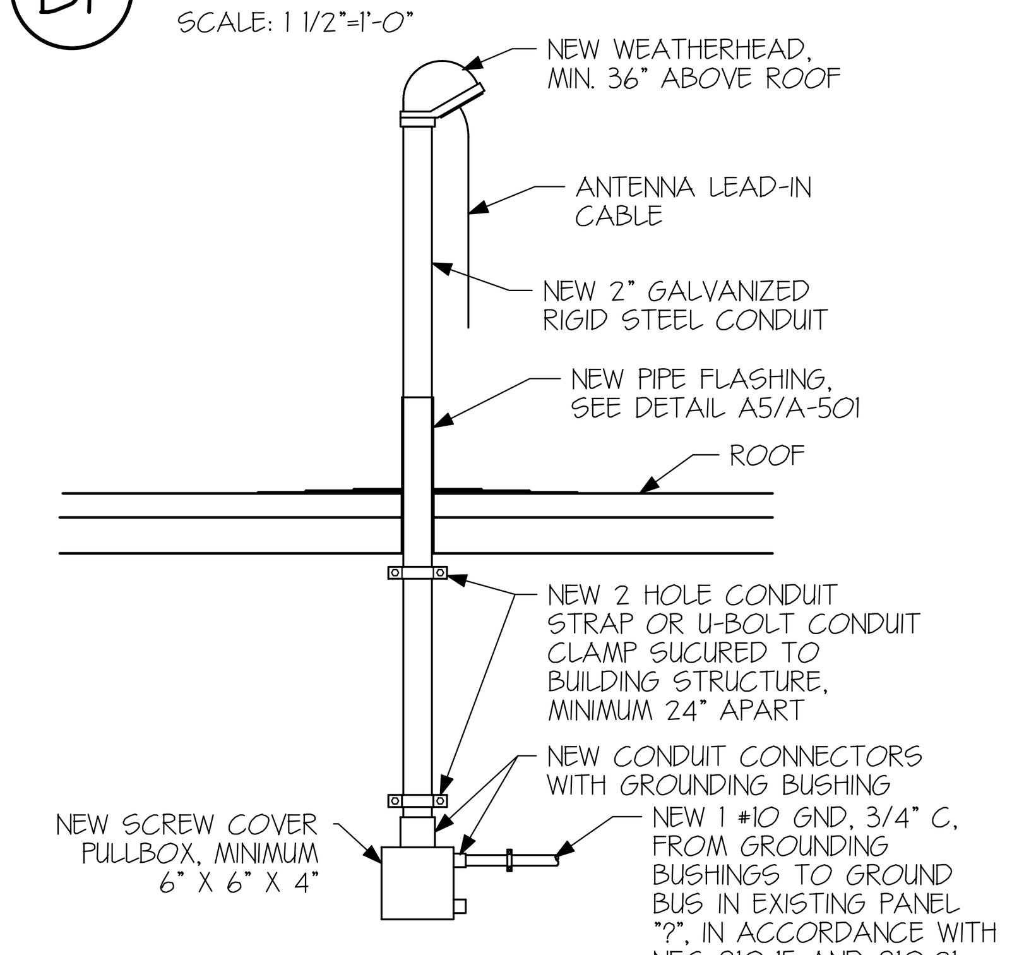
C1 WOOD DECK CURB FLASHING DETAIL

SCALE: 1 1/2"=1'-0"



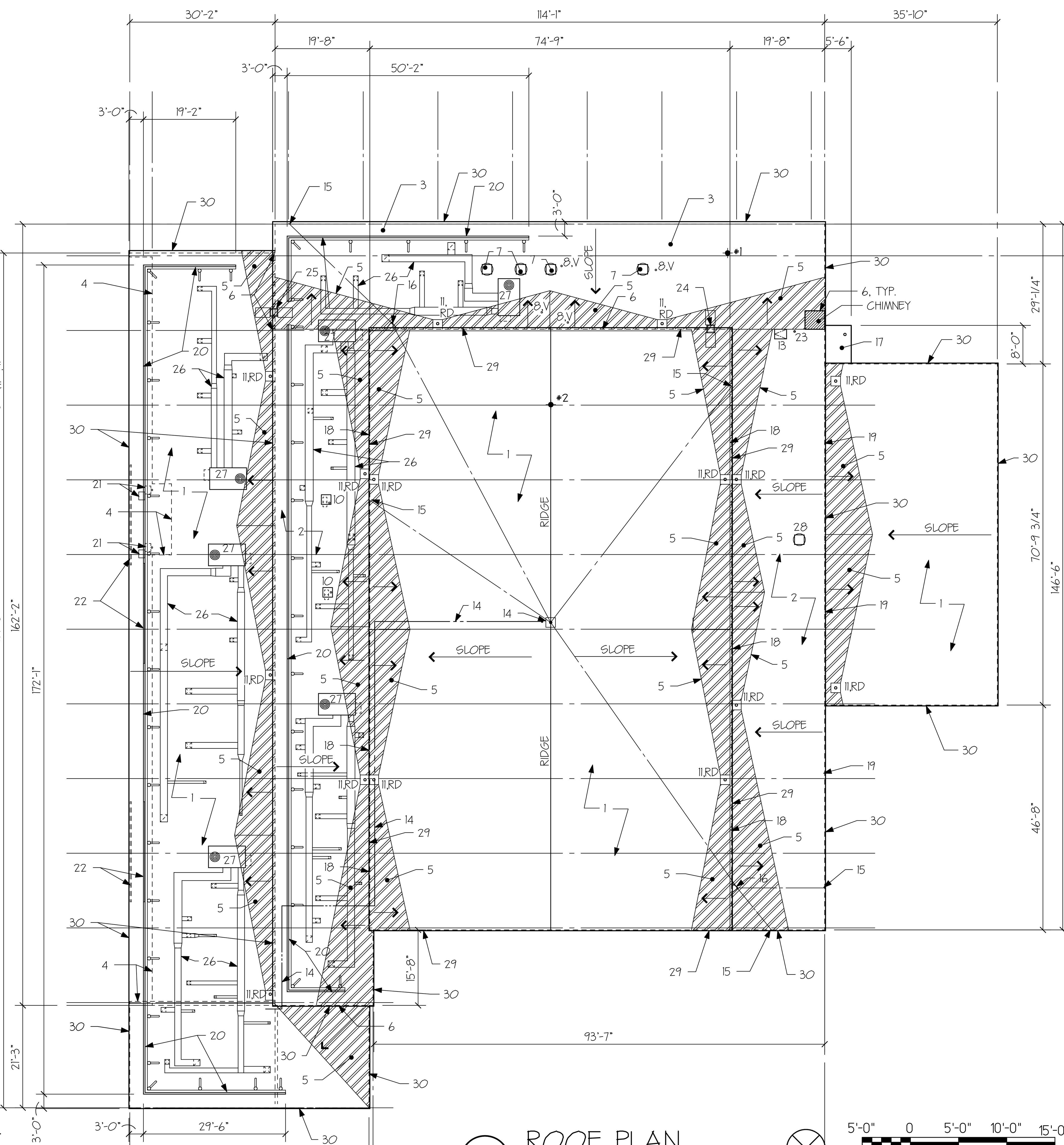
B1 VENT/PIPE FLASHING

SCALE: 1 1/2"=1'-0"



A1 TV ANTENNA MAST DETAIL

SCALE: 3/4"=1'-0"



A3 ROOF PLAN

SCALE: 1/16"=1'-0"

NORTH

5'-0" 0 5'-0" 10'-0" 15'-0"
SCALE: 1/16"=1'-0"

KEYED NOTES

20. NEW MECHANICAL EQUIPMENT SCREENS. SEE DETAIL A2/A-501. ALL STEEL PIPE SUPPORTS AND STEEL ANGLES AE TO BE PREPPED AND PAINTED. INSTALL PREFINSHED METAL PANELS TO EQUIPMENT SCREEN FRAMING. COORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS.
21. REMOVE (2) EXISTING FLAG LIGHTS. INSTALL (2) NEW LIGHTS ON EQUIPMENT SCREEN. SEE A2/A-501 AND ELECTRICAL DRAWINGS.
22. EXISTING ARMORY SIGNAGE AND MOUNTING CHANNELS AND SQUARE POSTS. REMOVE SIGNAGE AND MOUNTING. WELD EXISTING SQUARE POSTS TO MECHANICAL EQUIPMENT SCREENS. PAINT ALL STEEL. 24 MOUNTING LOCATIONS, FIELD VERIFY.
23. REMOVE EXISTING CABLES AND COAX FROM HOLES IN SIDE OF EXISTING ROOF HATCH. INSTALL 2" DIA. STEEL CONDUIT WITH WEATHERHEAD ABOVE ROOF AND JUNCTION BOX BELOW ROOF. ANCHOR CONDUIT TO WALL OR STRUCTURE. SEE DETAIL B1/A-103 AND FLASH AS PER DETAIL A1/A-103.
24. NEW ROOF ACCESS LADDER, SEE DETAIL A2/A-501. INSTALL WALK PADS AT TOP AND BOTTOM OF LADDER.
25. NEW ROOF ACCESS LADDER, SEE DETAIL A4/A-502. INSTALL WALK PADS AT TOP AND BOTTOM OF LADDER.
26. NEW MECHANICAL DUSTS, SEE MECHANICAL DRAWINGS.
27. NEW MECHANICAL EQUIPMENT, SEE MECHANCIAL DRAWINGS.
28. NEW EXHAUST FAN, SEE MECHANICAL AND ELECTRICAL DRAWINGS. SEE ROOF DECK REINFORCING, DETAIL D1/A-101 AND FLASHING DETAIL C1/A-103.
29. UPPER DRILL HALL ROOF EDGE FLASHING, SEE DETAIL C3/A-802.
30. ROOF EDGE FLASHING, SEE D5/A-501.

NOTE:
THE ORIGINAL CONSTRUCTION DOCUMENTS FOR THIS BUILDING INDICATED THAT THE ELECTRICAL CONDUITS WERE RECESSED INTO THE T&G WOOD ROOF DECK.
THERE IS REASON TO BELIEVE THIS IS NOT THE CASE. THE CONTRACTOR SHOULD USE CARE WHEN REMOVING THE ROOFING AND INSULATION FROM THE WOOD ROOF DECK AREAS. WHERE THE T&G WOOD ROOF DECK OCCURS THE EXISTING ELECTRICAL CONDUITS ARE ON TOP OF THE T&G ROOF DECK. THE NEW INSULATION WILL NEED TO BE MODIFIED TO FIT THE EXISTING ELECTRICAL CONDUITS. THE CONTRACTOR WILL BE RESPONSIBLE RO REPAIR ANY DAMAGE DONE TO THE CONDUITS AND THE ELECTRICAL SYSTEM WHEN REMOVING EXISTING ROOFING AND INSULATION OR WHEN INSTALLING NEW INSULATION AND ROOFING.

NOTE:
THE CONTRACTOR WILL REMOVE ALL EXISTING WINDOWS AND FURNISH AND INSTALL NEW EXTERIOR WINDOWS.

1. ALL EXTERIOR WINDOWS WILL BE REPLACED (EXCEPT ENTRANCE DOORS AND WINDOWS).
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THE WINDOW DIMENSIONS AND FIELD VERIFYING EXISTING CONDITIONS.
3. THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES AND TRIM FOR A COMPLETE INSTALLATION.
4. THE CONTRACTOR WILL REPAIR AND PAINT ANY DAMAGE THAT OCCURS DURING WINDOW REMOVAL OR INSTALLATION.
5. THE NEW WINDOWS WILL BE ALUMINUM STOREFRONT WITH 1" INSULATED GLAZING AS SHOWN ON SHEETS A-801 AND A-802.

0" 3" 6" 1'-0"
SCALE: 3"=1'-0"

12" 6" 0 1'-0"
SCALE: 1 1/2"=1'-0"

12" 6" 0 1'-0" 2'-0" 3'-0"
SCALE: 3/4"=1'-0"

GRAPHIC SCALE

KEYED NOTES

1. UPPER ARMORY ROOF OVER DRILL HALL, FIRST FLOOR AND GARAGE. EXISTING 2" WOODFIBER BOARD, 2" PERLITE BOARD AND BUILT-UP/GRAVEL SURFACED ROOF MEMBRANE TO BE REMOVED (TO EXISTING 4" X 6" T&G ROOF DECK). INSTALL 1/2" PLYWOOD SHEATHING TO EXISTING 4" X 6" T&G ROOF DECK. NAIL PLYWOOD TO 4 X 6 T&G WOOD ROOF DECK WITH 8d NAILS AT 6" O.C. AT EDGES AND 2 ROWS IN FIELD AT 12" O.C.
EXISTING ROOF SLOPE IS 1/8" / 12", INSTALL ADDITIONAL 1/8" / 12" TAPERED INSULATION (BETWEEN LAYERS OF RIGID INSULATION).
INSTALL (2) LAYERS OF 2" RIGID INSULATION.
INSTALL LAYER OF FR-10 OVER INSULATION.
INSTALL MECHANICALLY ATTACHED 60 MIL TPO ROOF MEMBRANE.
2. ROOFS OVER THE SECOND FLOOR.
EXISTING 2" WOODFIBER BOARD, 2" PERLITE BOARD AND BUILT-UP/GRAVEL SURFACED ROOF MEMBRANE TO BE REMOVED (TO EXISTING 4" X 6" T&G ROOF DECK). INSTALL 1/2" PLYWOOD SHEATHING TO EXISTING 4" X 6" T&G ROOF DECK. NAIL PLYWOOD TO 4" X 6" T&G WOOD ROOF DECK WITH 8d NAILS AT 6" O.C. AT EDGES AND 2 ROWS IN FIELD AT 12" O.C.
EXISTING ROOF SLOPE IS 1/4" / 12", NO ADDITIONAL TAPERED INSULATION IS TO BE INSTALLED.
INSTALL (2) LAYERS OF 2" RIGID INSULATION.
INSTALL LAYER OF FR-10 OVER INSULATION.
INSTALL MECHANICALLY ATTACHED 60 MIL TPO ROOF MEMBRANE.
3. THE SECOND FLOOR (SOUTH EAST) ROOF. THIS ROOF DECK IS A CONCRETE STRUCTURE.
EXISTING 2" WOODFIBER BOARD, 2" PERLITE BOARD AND BUILT-UP/GRAVEL SURFACED ROOF MEMBRANE TO BE REMOVED (TO EXISTING CONCRETE ROOF DECK).
EXISTING ROOF SLOPE IS 1/4" / 12", NO ADDITIONAL TAPERED INSULATION IS TO BE INSTALLED.
INSTALL (2) LAYERS OF 2" RIGID INSULATION.
INSTALL MECHANICALLY ATTACHED 60 MIL TPO ROOF MEMBRANE.
4. WALL BELOW ROOF.
5. REMOVE EXISTING LIGHTWEIGHT CONCRETE USED FOR SLOPE, ADDITIONAL TAPERED INSULATION TO BE ADDED TO PROVIDE ADDITIONAL ROOF SLOPE TO ROOF DRAINS. (SHADED AREA).
6. WALL/ROOF FLASHING. INSTALL NEW TPO FLASHING MEMBRANE. INSTALL NEW PREFINISHED METAL COUNTER FLASHING. SEE DETAIL D3/A-103.
7. EXISTING EXHAUST FAN, REMOVE AND REINSTALL DURING REROOFING. RAISE CURB WITH FIRE TREATED 2X CURB, FLASH AS PER C1/A-103. SEE MECHANICAL AND ELECTRICAL DRAWINGS.
8. EXISTING PLUMBING VENT/PIPE PENETRATION. INSTALL NEW PREMOLDED PIPE FLASHING BOOT OR FEILD FABRICATED PIPE FLASHING. SEE DETAIL B1/A-103.
9. NOT USED.
10. RELIEF AIR ON CURB. INSTALL NEW 2 X CURB OF FIRE TREATED WOOD (8" MIN. ABOVE ROOF DECK). FLASH AS PER C1/A-103. SEE MECHANICAL DRAWINGS.
11. EXISTING PRIMARY ROOF DRAIN TO BE REMOVED. INSTALL NEW ROOF DRAIN AT EXISTING LOCATION. FLASH AS PER DETAIL D1/A-103. SEE PLUMBING DRAWINGS.
12. PROTECTION/WALK PAD, 30"X60".
13. REMOVE EXISTING ROOF HATCH. INSTALL NEW ROOF HATCH AND FLASH AS PER DETAIL C1/A-103. RAISE CURB AS NEEDED.
14. EXISTING ANTENNA MAST INSTALLED IN NEW BASE. SEE DETAIL A4/A-101 AND B4/A-101. NEW 2" CONDUIT WITH PULL LINE TO BE INSTALLED UNDER ROOF DECK. FROM PULL BOX EXTEND CONDUIT THRU ROOF, SECURELY ANCHOR CONDUIT TO GLU-LAM ROOF BEAM. INSTALL WEATHER HEAD ON CONDUIT. SEE DETAIL A1/A-103. FLASH CONDUIT AS PER DETAIL B1/A-103.
SEE ELECTRICAL DRAWINGS. THE INTERIOR ANTENNA CONDUIT IS TO BE PAINTED WHERE EXPOSED. THE CONDUIT IS TO RUN UNDER THE ROOF DECK FROM THE PULL BOX TO THE CONCRETE BLOCK WALL, DOWN THE CONCRETE BLOCK WALL, THRU SECOND FLOOR BALCONY WALKWAY (CORE DRILL AND CAULK), ALONG CONCRETE BLOCK WALL (UNDER BALCONY WALKWAY), THRU CONCRETE BLOCK WALL TO STORAGE ROOM, ANCHORED TO STORAGE ROOM CEILNG AND ALONG WALL, THRU CONCRETE BLOCK WALL TO RADIO ROOM AT END OF CORRIDOR.
ALL CONCRETE BLOCK WALL PENETRATIONS ARE TO BE FIRE SEALED AS PER DETAIL A1/A-101.
THE NATIONAL GUARD WILL REMOVE AND REINSTALL THE ANTENNA, CABLES AND GUY LINES.
15. ANTENNA GUY LINES AND NEW ANCHORS (LOCATED AT EXISTING LOCATIONS). SEE DETAILS A5/A-101 OR C1/A-102. THE NEW ANCHORS ARE TO BE INSTALLED AT EXISTING LOCATIONS. THE UTAH NATIONAL GUARD WILL REMOVE AND INSTALL THE ANTENNA AND GUY LINES.
16. EXISTING STEEL ANTENNA WALL BRACKETS TO REMAIN IN PLACE. REMOVE ANTENNA PIPE. INSTALL NEW ANTENNA BASE AS PER DETAIL A4/A-101 OR D3/A102.
17. EXISTING ENTRY CANOPY ROOF. REMOVE THE EXISTING GRAVEL SURFACED BUILT-UP ROOFING TO THE EXISTING CONCRETE ROOF SLAB. CORE DRILL DRAIN OPENING TO FIT NEW 3" DIA. ROOF DRAIN, SEE DETAIL D1/A-103, SIM. AND PLUMBING DRAWINGS. INSTALL NEW MECHANICALLY ATTACHED 60 MIL, REINFORCED TPO ROOF MEMBRANE. INSTALL WALL/ROOF FLASHING AS PER D3/A-103, INSTALL PERIMETER FASCIA AND FLASHING AS PER DETAIL B1/A-103.
INSTALL PVC DRAIN PIPE FROM ROOF DRAIN, ATTACH TO STEEL PIPE COLUMN AND ANGLE OUT AT GRADE. PAINT PVC PIPE TO MATCH STEEL COLUMN.
18. UPPER DRILL HALL WINDOWS TO BE REMOVED. REMOVE OPERATORS AND ASSOCIATED HARDWARE. RAISE WINDOW SILL/ROOF FASHING AND INSTALL NEW ALUMINUM STOREFRONT WINDOW SYSTEM. SEE WINDOW ELEVATIONS D3/A-801 AND B3/A-801.
19. SECOND FLOOR WINDOWS TO BE REMOVED. REMOVE OPERATORS AND ASSOCIATED HARDWARE. RAISE WINDOW SILL/ROOF FLASHING AT ADJACENT ROOF AREA. INSTALL NEW ALUMINUM STOREFRONT WINDOW SYSTEM. AT FULL SIZE WINDOW ARRANGE WINDOW FRAMING TO ACCOMMODATE AN EXISTING WINDOW AIR CONDITIONER. SEE WINDOW ELEVATION A3/A-801.

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PROJECT TITLE:

Ogden Armory-Roofing Improvements

OWNER:

State of Utah-DFCM

Utah National Guard Salt Lake City, Utah

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCS.

ISSUE DATE: JANUARY 30, 2006

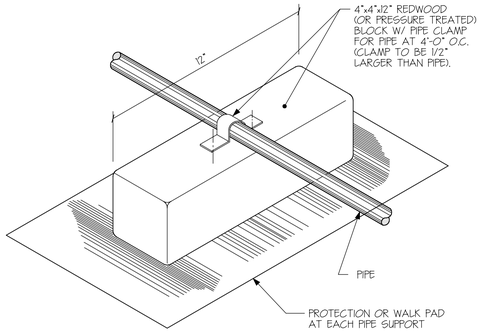
DFCM PROJECT NO:	05040470
CONTRACT NO:	057470
CAD PROJECT NO:	N/A
CAD DWG FILE:	N/A
ARCH PROJECT FILE:	0505.pj\0505.db\aro.dr
DRAWN BY:	D.D.
CHK'D BY:	D.D.
COPYRIGHT:	State of Utah

SHEET TITLE

ROOF PLAN AND DETAILS

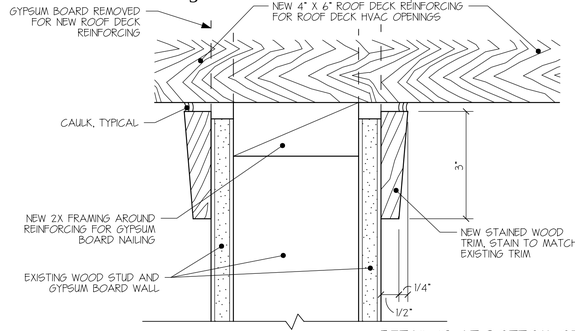
SHEET NUMBER

A-103



D1 PIPE SUPPORT

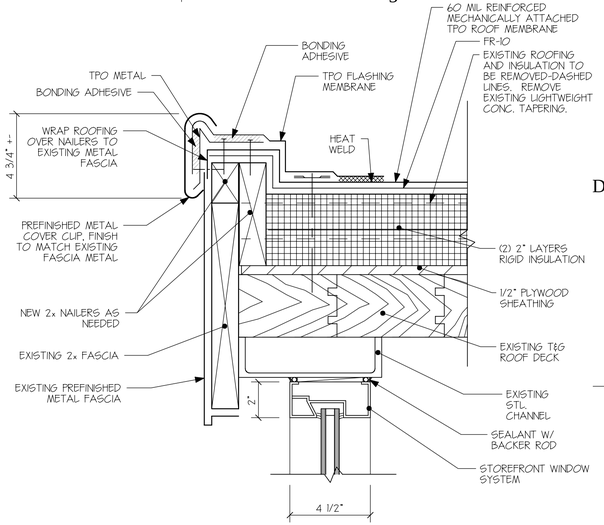
SCALE: 3"=1'-0"



D3 TRIM DETAIL

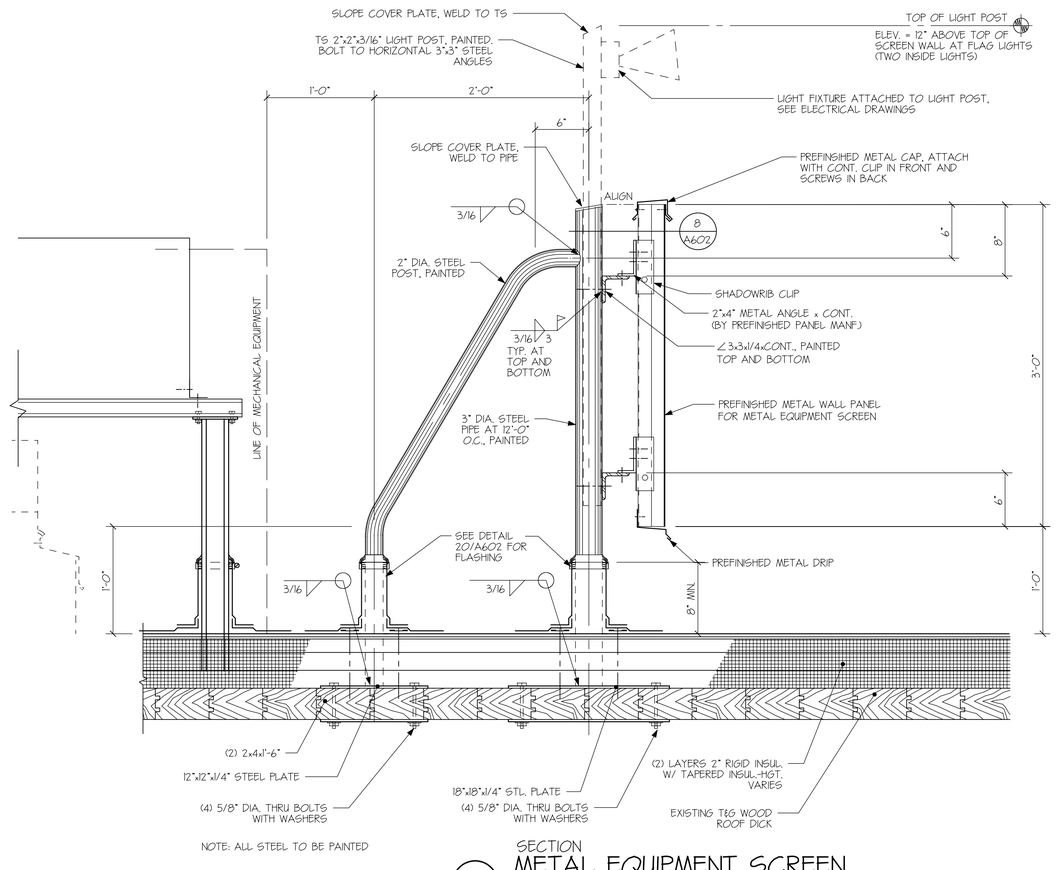
SCALE: HALF SCALE

DETAIL IS AT BOTTOM OF 4x6 REINFORCING BEAM, TYPICAL AT SIDES OF 4x6 REINFORCING BEAM.



D5 FLASHING DETAIL

SCALE: 3"=1'-0"

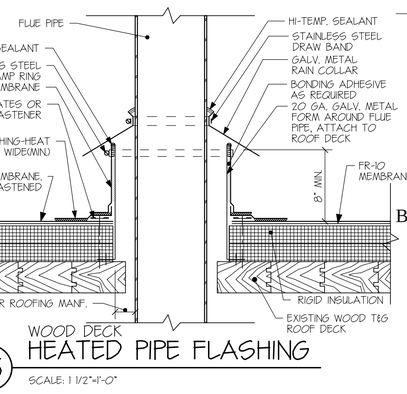


NOTE: ALL STEEL TO BE PAINTED

SECTION

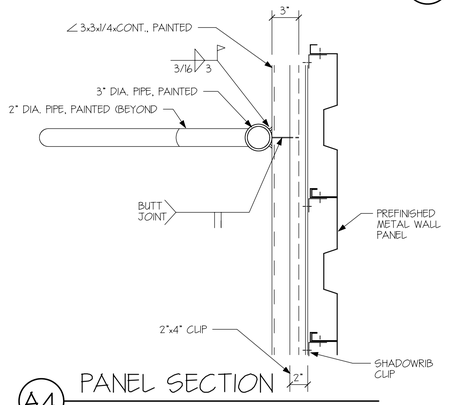
A2 METAL EQUIPMENT SCREEN

SCALE: 1 1/2"=1'-0"



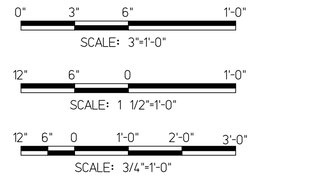
B5 HEATED PIPE FLASHING

SCALE: 1 1/2"=1'-0"



A4 PANEL SECTION

SCALE: 1 1/2"=1'-0"



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PROJECT TITLE:

Ogden Armory-Roofing Improvements

OWNER:

State of Utah-DFCM

Utah National Guard
Salt Lake City, Utah

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCS.

ISSUE DATE: JANURAY 30, 2006

DFCM PROJECT NO:	05041470
CONTRACT NO.:	057471
CAD PROJECT NO:	N/A
CAD DWG FILE:	N/A
ARCH PROJECT FILE:	0505.pj\0505de1.db
DRAWN BY:	D.D.
CHK'D BY:	D.D.
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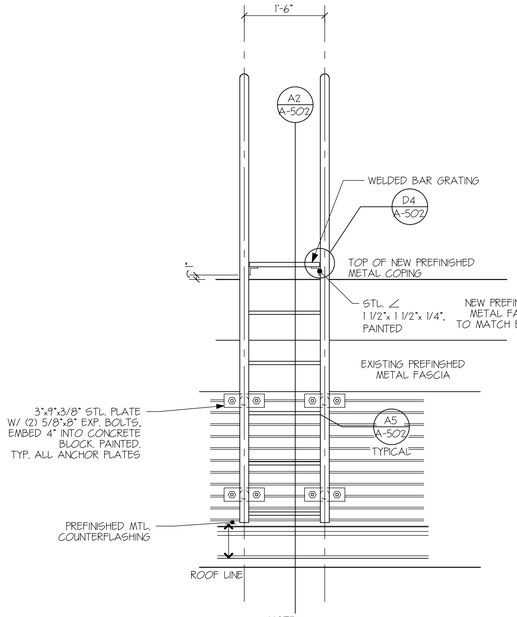
SHEET TITLE

ROOF DETAILS

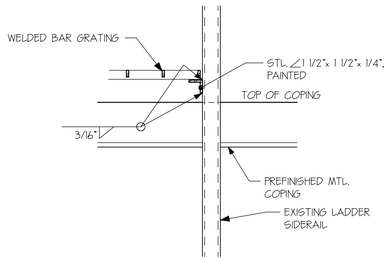
SHEET NUMBER

A-501

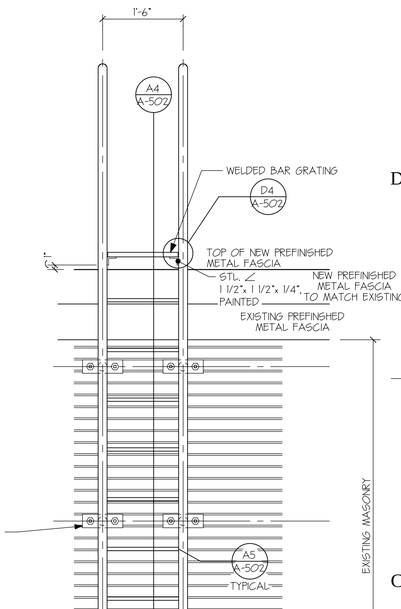
SHEET 6 OF 19



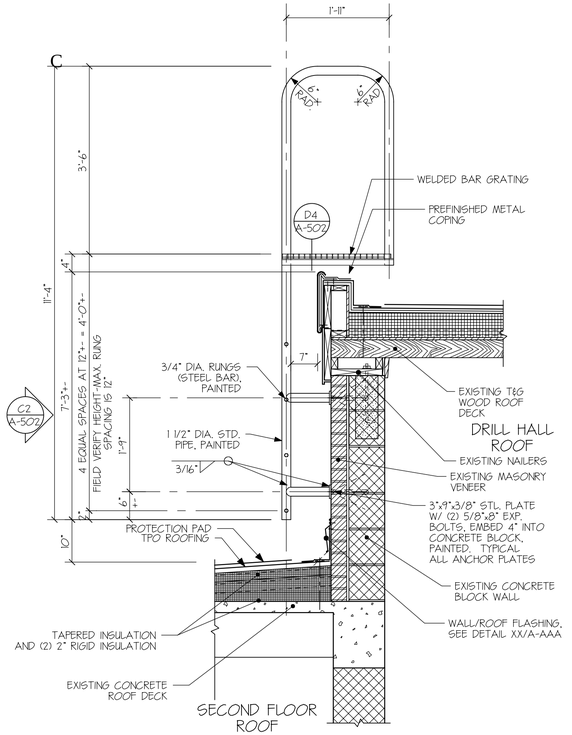
ELEVATION
ROOF ACCESS LADDER
C2 SCALE: 3/4"=1'-0"



DETAIL
D4 SCALE: 1 1/2"=1'-0"

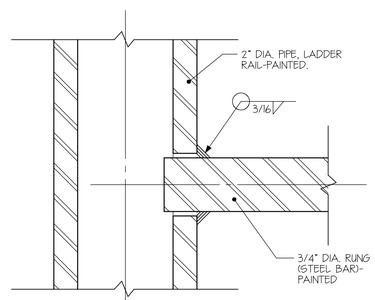


ELEVATION
ROOF ACCESS LADDER
B5 SCALE: 3/4"=1'-0"



ROOF ACCESS LADDER
A2 SCALE: 3/4"=1'-0"

ROOF ACCESS LADDER
A4 SCALE: 3/4"=1'-0"



LADDER DETAIL
A5

FULL SCALE
0" 3" 6" 1'-0"
SCALE: 3"=1'-0"

12" 6" 0 1'-0"
SCALE: 1 1/2"=1'-0"

12" 6" 0 1'-0" 2'-0"
SCALE: 3/4"=1'-0"

GRAPHIC SCALE
4

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PROJECT TITLE:

Ogden Armory-Roofing Improvements

OWNER:

State of Utah-DFCM

Utah National Guard
Salt Lake City, Utah

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCS.

ISSUE DATE: JANUARY 30, 2006

DFCM PROJECT NO:	05040470
CONTRACT NO.:	057470
CAD PROJECT NO:	N/A
CAD DWG FILE:	N/A
ARCH PROJECT FILE:	0505.pj\0505de2.db
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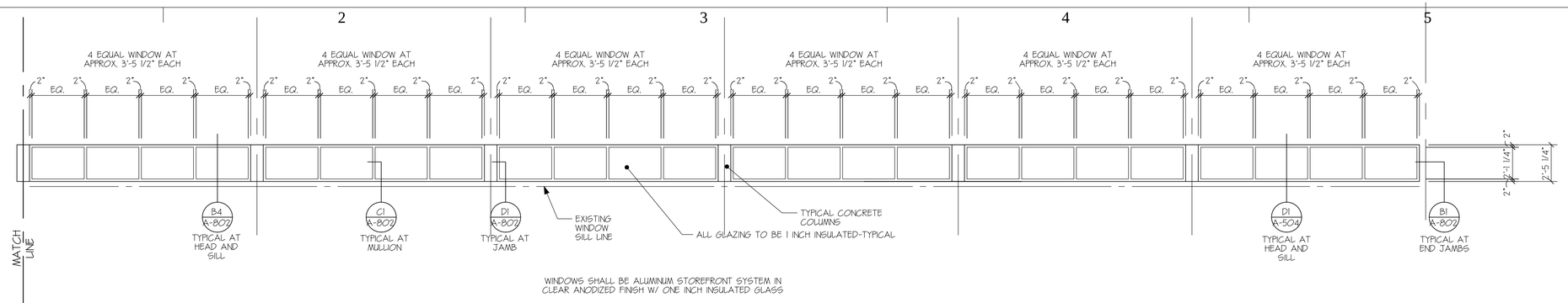
SHEET TITLE

DETAILS

SHEET NUMBER

A-502

SHEET 7 OF 19



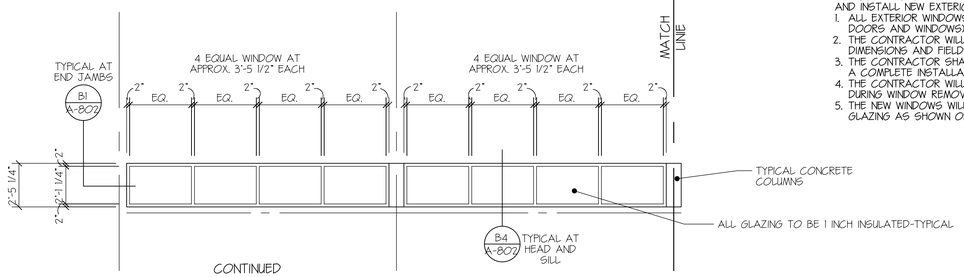
WINDOWS SHALL BE ALUMINUM STOREFRONT SYSTEM IN CLEAR ANODIZED FINISH W/ ONE INCH INSULATED GLASS

D3 NORTH-CLERESTORY UPPER DRILL HALL WINDOW ELEVATION

SCALE: 1/4"=1'-0"

NOTE:
THE CONTRACTOR WILL REMOVE ALL EXISTING WINDOWS AND FURNISH AND INSTALL NEW EXTERIOR WINDOWS.

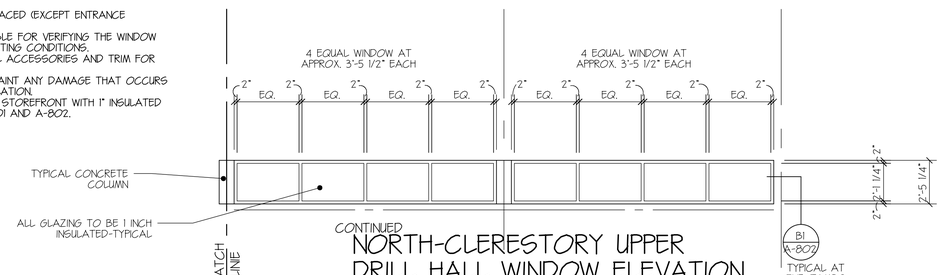
1. ALL EXTERIOR WINDOWS WILL BE REPLACED (EXCEPT ENTRANCE DOORS AND WINDOWS).
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THE WINDOW DIMENSIONS AND FIELD VERIFYING EXISTING CONDITIONS.
3. THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES AND TRIM FOR A COMPLETE INSTALLATION.
4. THE CONTRACTOR WILL REPAIR AND PAINT ANY DAMAGE THAT OCCURS DURING WINDOW REMOVAL OR INSTALLATION.
5. THE NEW WINDOWS WILL BE ALUMINUM STOREFRONT WITH 1" INSULATED GLAZING AS SHOWN ON SHEETS A-801 AND A-802.



CONTINUED

NORTH-CLERESTORY UPPER DRILL HALL WINDOW ELEVATION

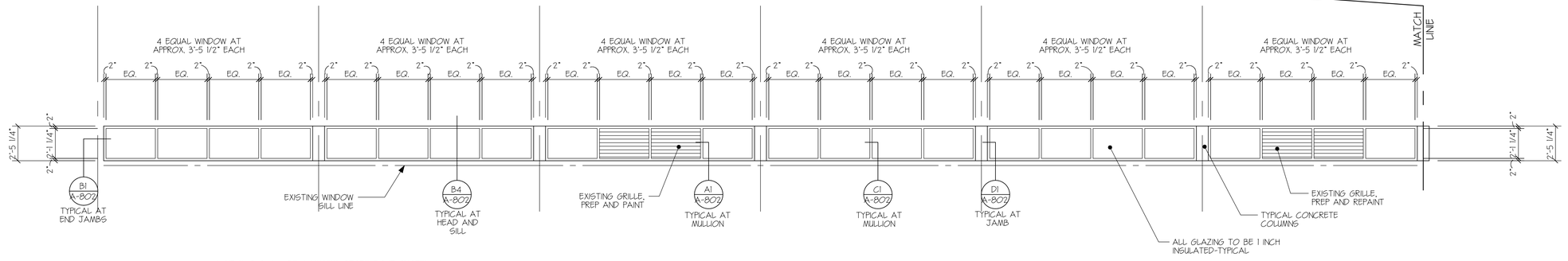
SCALE: 1/4"=1'-0"



CONTINUED

NORTH-CLERESTORY UPPER DRILL HALL WINDOW ELEVATION

SCALE: 1/4"=1'-0"

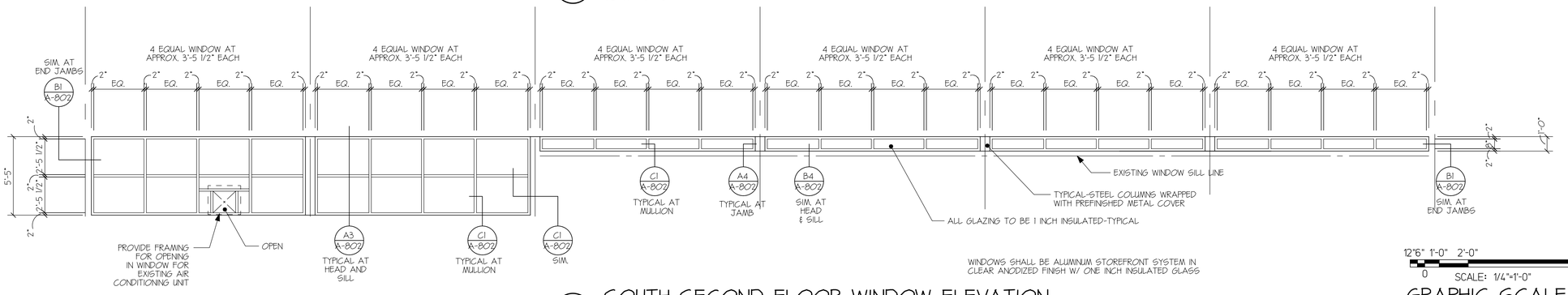


WINDOWS SHALL BE ALUMINUM STOREFRONT SYSTEM IN CLEAR ANODIZED FINISH W/ ONE INCH INSULATED GLASS

B3 SOUTH-CLERESTORY UPPER DRILL HALL WINDOW ELEVATION

SCALE: 1/4"=1'-0"

WINDOWS SHALL BE ALUMINUM STOREFRONT SYSTEM IN CLEAR ANODIZED FINISH W/ ONE INCH INSULATED GLASS



WINDOWS SHALL BE ALUMINUM STOREFRONT SYSTEM IN CLEAR ANODIZED FINISH W/ ONE INCH INSULATED GLASS

A3 SOUTH-SECOND FLOOR WINDOW ELEVATION

SCALE: 1/4"=1'-0"

12"6" 1'-0" 2'-0" 11'-0"
0 SCALE: 1/4"=1'-0"

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DFCM PROJECT NO:	05041470
CONTRACT NO.:	057471
CAD PROJECT NO:	N/A
CAD DWG FILE:	N/A
ARCH PROJECT FILE:	0505.prj\0505de4.db
DRAWN BY:	D.D.
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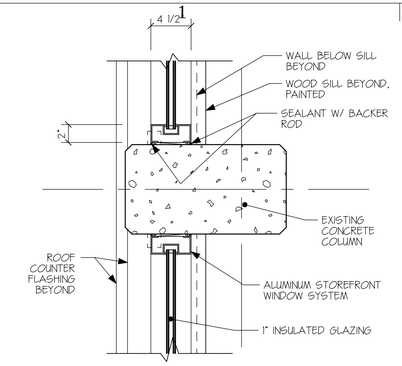
SHEET TITLE

WINDOW ELEVATIONS

SHEET NUMBER

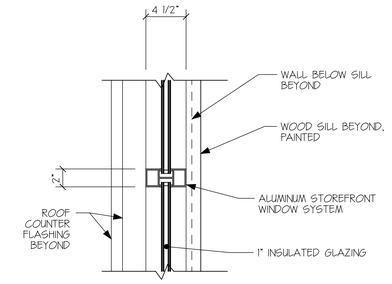
A-801

SHEET 8 OF 19



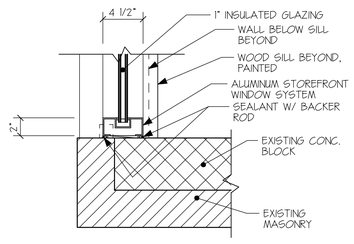
D1 JAMB DETAIL

SCALE: 1 1/2"=1'-0"



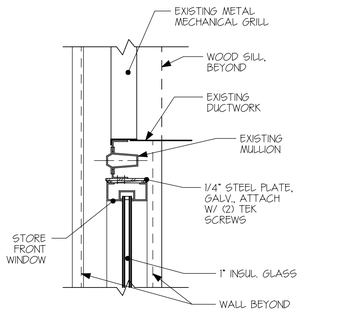
C1 MULLION DETAIL

SCALE: 1 1/2"=1'-0"



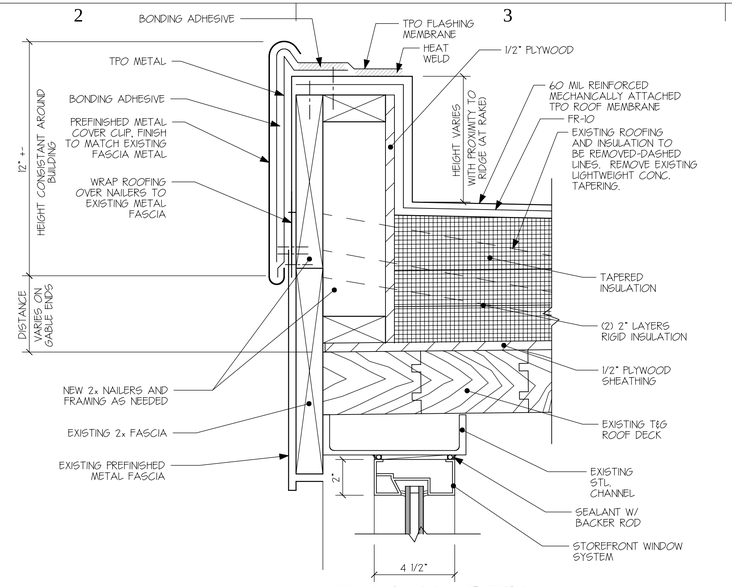
B1 JAMB DETAIL

SCALE: 1 1/2"=1'-0"



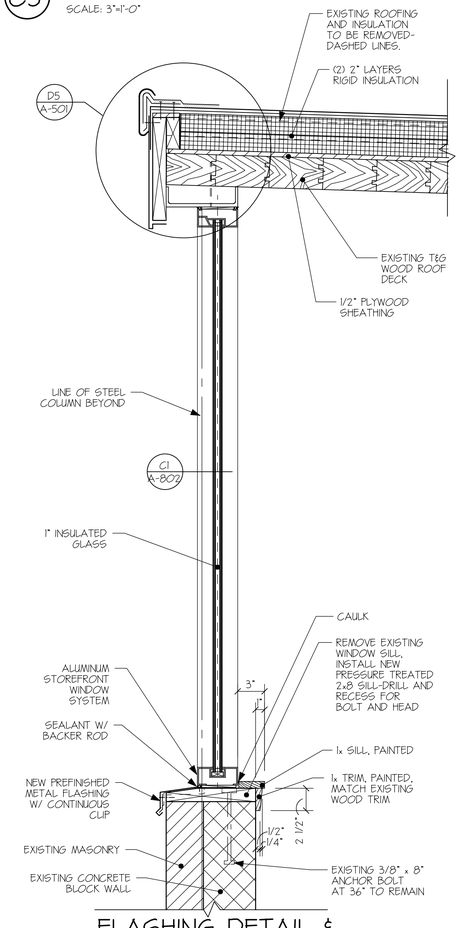
A1 JAMB DETAIL AT GRILLE

SCALE: 1 1/2"=1'-0"



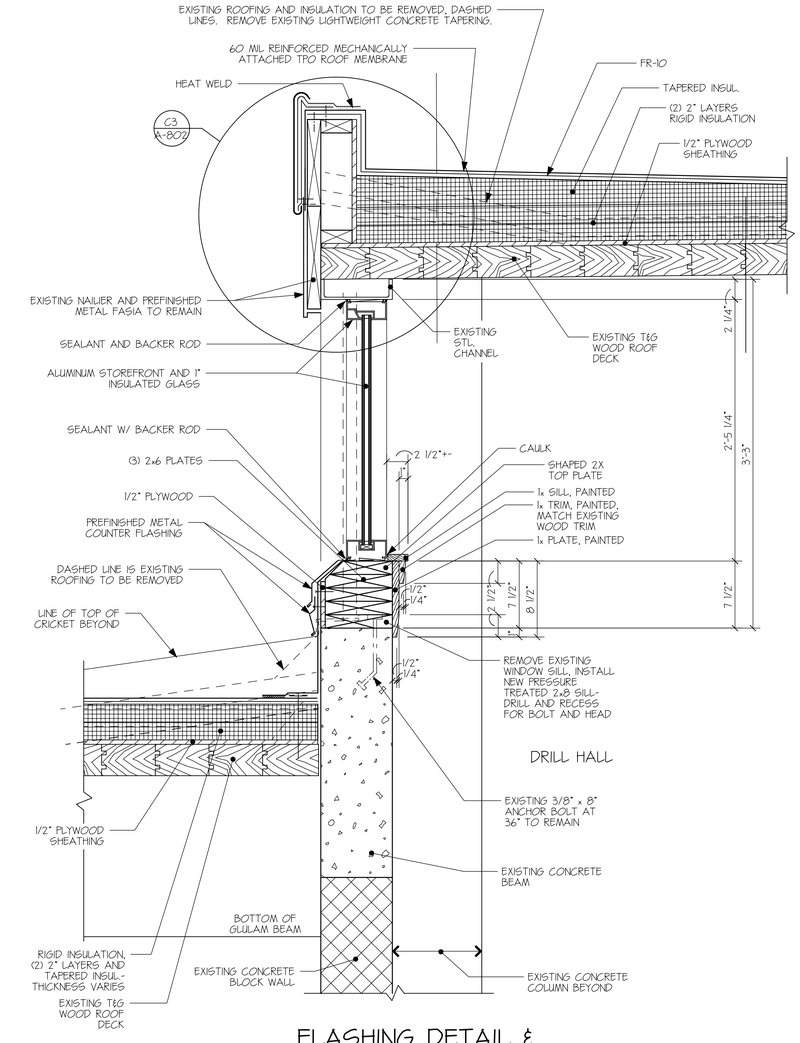
C3 FLASHING DETAIL

SCALE: 3"=1'-0"



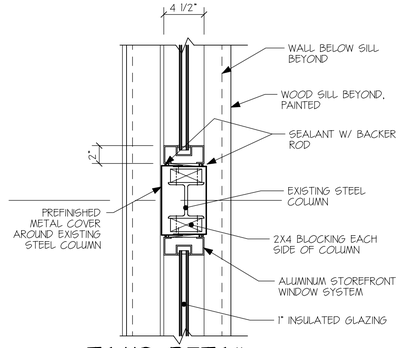
A3 FLASHING DETAIL & WINDOW SILL/HEAD DETAIL

SCALE: 1 1/2"=1'-0"



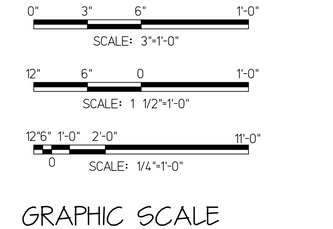
B4 FLASHING DETAIL & WINDOW SILL/HEAD DETAIL

SCALE: 1 1/2"=1'-0"



A4 JAMB DETAIL

SCALE: 3"=1'-0"



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ARCH PROJECT FILE:	0505.prj\0505de4.db
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SHEET TITLE

WINDOW DETAILS

SHEET NUMBER

A-802

SHEET 9 OF 19

SYMBOL LEGEND

SYMBOL	DESCRIPTION
PLUMBING PIPING	
—CWV—	COMBINATION WASTE AND VENT
	SOIL, WASTE – ABOVE GRADE
	SOIL, WASTE – BELOW GRADE
—GW—	GREASE WASTE – ABOVE GRADE
—GW—	GREASE WASTE – BELOW GRADE
	VENT
—AV—	ACID VENT
—AW—	ACID WASTE – ABOVE GRADE
—AW—	ACID WASTE – BELOW GRADE
	COLD WATER
	HOT WATER
	HOT WATER CIRCULATE
—180—	180°F HOT WATER
—180R—	180° HOT WATER RETURN
—160—	160° HOT WATER
—160R—	160° HOT WATER RETURN
—RW—	RAINWATER – ABOVE GRADE
—RW—	RAINWATER – BELOW GRADE
—ORW—	OVERFLOW RAINWATER ABOVE GRADE
—ORW—	OVERFLOW RAINWATER BELOW GRADE
—SD—	STORM DRAIN
VTR	VENT THRU ROOF
	NON POTABLE WATER
—IW—	IRRIGATION WATER
—SS—	SANITARY SEWER
—W—	WATER
—PWS—	PURE WATER SUPPLY
—PWR—	PURE WATER RETURN
—G—	GAS
—LPG—	PROPANE
—VAC—	VACUUM
—A—	COMPRESSED AIR
—MA—	MEDICAL AIR
—O—	OXYGEN
—NO—	NITROUS OXIDE
—N—	NITROGEN
—CO2—	CARBON DIOXIDE
—EVAC—	EVACUATION

SYMBOL LEGEND

SYMBOL	DESCRIPTION
HVAC PIPING	
—HPS—	HIGH PRESSURE STEAM
—MPS—	MEDIUM PRESSURE STEAM
—LPS—	LOW PRESSURE STEAM
—HPC—	HIGH PRESSURE RETURN
—MPC—	MEDIUM PRESSURE RETURN
—LPC—	LOW PRESSURE RETURN
—PC—	PUMP DISCHARGE
—HWS—	HOT WATER SUPPLY
—HWR—	HOT WATER RETURN
—TWS—	TEMPERED WATER SUPPLY
—CWS—	CHILLED WATER SUPPLY
—CWR—	CHILLED WATER RETURN
—RL—	REFRIGERANT LIQUID
—RS—	REFRIGERANT SUCTION
—C—	CONDENSER WATER SUPPLY
—CR—	CONDENSER WATER RETURN
—D—	DRAIN LINE
—HG—	HOT GAS BYPASS
—GS—	GLYCOL SUPPLY
—GR—	GLYCOL RETURN
—FOS—	FUEL OIL SUCTION
—FOR—	FUEL OIL RETURN
—FOV—	FUEL OIL VENT

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED

AD	ACCESS DOOR	MCA	MINIMUM CIRCUIT AMPS
AIR	AIR CONDITION(–ING,–ED)	MFR	MANUFACTURER
COND		MIN	MINIMUM
APD	AIR PRESSURE DROP	N/A	NOT APPLICABLE
BD	BALANCING DAMPER	NC	NORMALLY CLOSED
BHP	BRAKE HORSE POWER	NC	NOISE CRITERIA
BTU	BRITISH THERMAL UNIT	NIC	NOT IN CONTRACT
BTUH	BTU/HOUR	NO	NORMALLY OPEN
CFH	CUBIC FEET PER HOUR	NPSH	NET POSITIVE SUCTION
CFM	CUBIC FEET PER MINUTE		HEAD
CLG	COOLING	NTS	NOT TO SCALE
COMP	COMPONENT	OA	OUTSIDE AIR
COND	CONDENS(–ER, –ING, –ATION)	OD	OUTSIDE DIAMETER
		OZ	OUNCE
CV	CONTROL VALVE	PD	PRESSURE DROP OR
CW	COLD WATER		DIFFERENCE
DIA	DIAMETER	PG	PROPYLENE GLYCOL
DISCH	DISCHARGE	PH	PHASE
DP	DEPTH OR DEEP	PPM	PARTS PER MILLION
DB	DRY BULB TEMPERATURE	PRESS	PRESSURE
(E)	EXISTING	PSF	POUNDS PER SQUARE FOOT
EER	ENERGY EFFICIENCY RATIO		
EFF	EFFICIENCY	PSI	POUNDS PER SQUARE INCH
EG	ETHYLENE GLYCOL		
ELEC	ELECTRIC	PSIA	PSI ABSOLUTE
ELEV	ELEVATION	PSIG	PSI GAUGE
ENT	ENTERING	R	THERMAL RESISTANCE
EVAP	EVAPORAT(–E, –ING, –ED, –OR)	RA	RETURN AIR
		RECIRC	RECIRCULATE
EWT	ENTERING WATER TEMPERATURE	REFR	REFRIGERATION
		REQD	REQUIRED
EXT	EXTERNAL	RLA	RATED ––– AMPS
(F)	FUTURE	RPM	REVOLUTIONS PER MINUTE
F	FAHRENHEIT	RW	RAINWATER
FC	FLEXIBLE CONNECT(–OR, –ION)	SA	SUPPLY AIR
		SC	SHADING COEFFICIENT
FD	FIRE DAMPER	SCFM	STANDARD CUBIC FEET PER MINUTE
FLA	FULL LOAD AMPS		
FPI	FINS PER INCH	SCW	SOFT COLD WATER
FPM	FEET PER MINUTE	SF	SAFETY FACTOR
FPS	FEET PER SECOND	SH	SENSIBLE HEAT
FSD	FIRE SMOKE DAMPER	SL	SEA LEVEL
FT	FEET	SP	STATIC PRESSURE
GAL	GALLON(S)	SPECS(S)	SPECIFICATION(S)
GPH	GALLONS PER HOUR	SQ	SQUARE
GPM	GALLONS PER MINUTE	STD	STANDARD
HD	HEAD	STM	STEAM
HG	MERCURY	TEMP	TEMPERATURE
HR	HOUR	TD	TEMP. DROP OR DIFF.
HT	HEIGHT	THERM	THERMAL
HTG	HEATING	TOT	TOTAL
HP	HORSE POWER	TSTAT	THERMOSTAT
HW	HOT WATER	V	VOLT
HZ	HERTZ(FREQUENCY)	VAC	VACUUM
ID	INSIDE DIAMETER	VAV	VARIABLE AIR VOLUME
IN	INCH	VEL	VELOCITY
KW	KILOWATT	VENT	VENT, VENTILATION
LAT	LEAVING AIR TEMPERATURE	VERT	VERTICAL
		VFD	VARIABLE FREQUENCY DRIVE
LBS	POUNDS		
LG	LENGTH	VOL	VOLUME
LH	LATENT HEAT	WC	WATER COLUMN
LRA	LOCKED ROTOR AMPS	WG	WATER GAUGE
LVG	LEAVING	WPD	WATER PRESSURE DROP
LWT	LEAVING WATER TEMPERATURE	WTR	WATER
		WT	WEIGHT
MAX	MAXIMUM	WB	WET BULB TEMP
MBH	THOUSAND BTU PER HOUR	YR	YEAR

SYMBOL LEGEND

SYMBOL	DESCRIPTION
VALVES, METERS, AND GAUGES	
	SHUT OFF VALVE
	GATE VALVE
	CHECK VALVE
	AUTO 2–WAY VALVE
	AUTO 3–WAY VALVE
	GLOBE VALVE
	BALL VALVE
	RELIEF VALVE
	CHAIN OPERATED GATE VALVE
	PRESSURE REDUCING VALVE
	BUTTERFLY VALVE
	SOLENOID VALVE
	ANGLE VALVE
	VENTURI
	BALANCING OR PLUG COCK
	FLOW SETTER
	EXPANSION VALVE (REFRIG.)
	GAS COCK
MAV	MANUAL AIR VENT
	STRAINER
	GAUGE COCK
	FLEXIBLE CONNECTION
	PRESSURE GAUGE
	THERMOMETER
	VICTUALIC COUPLING
	REDUCER CONCENTRIC
	REDUCER ECCENTRIC
	REFRIGERANT SITE GLASS
	REFRIGERANT STAINER
	REFRIGERANT FILTER DRIER
	90° ELBOW UP
	90° ELBOW DOWN
	90° TEE UP
	90° TEE DOWN
	UNION
	CAPPED PIPE
	ANCHOR
	FLOAT AND THERMOSTATIC TRAP
HVAC SYMBOLS	
T	THERMOSTAT
S	TEMPERATURE SENSOR
H	HUMIDISTAT

SYMBOL LEGEND

SYMBOL	DESCRIPTION
DUCTWORK	

SINGLE LINE	DOUBLE LINE	DESCRIPTION
		RECTANGULAR SUPPLY DUCT UP
		RECTANGULAR SUPPLY DUCT DOWN
		RECTANGULAR RETURN DUCT UP
		RECTANGULAR RETURN DUCT DOWN
		RECTANGULAR EXHAUST DUCT UP
		RECTANGULAR EXHAUST DUCT DOWN
		ROUND DUCT UP
		ROUND DUCT DOWN
		ACCOUSTICALLY LINED RECTANGULAR DUCT
		90° RECTANGULAR ELBOW WITH TURNING VANES
		90° RADIUS ELBOW R=1.5
		DUCT SIZE OR SHAPE TRANSITION
		OPPOSED BLADE BALANDING DAMPER (O.B.D.) IN RECT DUCT
		BUTTERFLY BALANCING DAMPER IN ROUND DUCTS
		COMBINATION TEE
		SPLITTER DAMPER
		SQUARE OR RECTANGULAR CEILING DIFFUSER
		ROUND CEILING DIFFUSER
		SIDEWALL REGISTER SUPPLY OR RETURN
		ROUND FLEXIBLE DUCT
		RETURN GRILLE
		EXHAUST GRILLE
FSD	FSD	FIRE/SMOKE DAMPER
		FIRE DAMPER
SD	SD	SMOKE DAMPER
FC	FC	FLEXIBLE CONNECTION

GENERAL MECHANICAL NOTES

1. ALL CEILING DIFFUSERS SHOWN AS SUCH ARE CD–1, CFM AS NOTED, UNLESS OTHERWISE NOTED. (CFM)
2. ALL CEILING RETURN GRILLES SHOWN AS SUCH ARE RG–1 UNLESS OTHERWISE NOTED.
3. ALL CEILING EXHAUST GRILLES SHOWN AS SUCH ARE EG–1, CFM AS NOTED, UNLESS OTHERWISE NOTED. (CFM)
4. DO NOT ROUTE DUCTS AND PIPES ABOVE ELECTRICAL PANELS. ALL ELECTRICAL PANELS MUST HAVE CLEAR ACCESS SPACE IN FRONT OF PANEL 4'–0" DEEP AND 6'–6" HIGH. DO NOT ROUTE DUCTS AND PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.
5. COORDINATE EXACT LOCATIONS OF CEILING DIFFUSERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLAN.
6. ALL DUCT DIMENSIONS ARE INSIDE FREE AREA DIMENSIONS. ADJUST SHEET METAL DIMENSION FOR LINED DUCT.
7. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.

MECHANICAL SHEET INDEX

SYMBOL LEGEND

SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
# / SHEET	DETAIL INDICATOR: # INDICATES DETAIL NUMBER, SHEET INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
# / SHEET	ELEVATION OR SECTION INDICATOR, EXTERIOR: # INDICATES ELEVATION OR SECTION NUMBER, SHEET INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
# / SHEET	ELEVATION OR SECTION INDICATOR, INTERIOR: # INDICATES ELEVATION OR SECTION NUMBER, SHEET INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
100	ROOM OR SPACE NUMBER.
1	KEYNOTE INDICATOR.
	REVISION INDICATOR.
CU–1	EQUIPMENT INDICATOR.
P–	PLUMBING FIXTURE INDICATOR.
TYPE / CFM / SIZE	DIFFUSER/GRILLE INDICATOR.
TYPE / SIZE	DIFFUSER/GRILLE INDICATOR.
	BREAK, STRAIGHT
	BREAK, ROUND.
MATCH LINE / SEE XX/X–XXX	MATCH LINE INDICATOR
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE.
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE.
	NEW CONNECTION POINT TO EXISTING

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Phone: 801-484-8161

PROJECT TITLE:

Ogden Armory-Roofing Improvements

OWNER:

State of Utah-DFCM

Utah National Guard

Salt Lake City, Utah

MARK	DATE	DESCRIPTION

ISSUE TYPE: PRELIMINARY DOCS.

ISSUE DATE: OCTOBER 25, 2005

DFCM PROJECT NO:	04145470
CONTRACT NO:	057039
CAD PROJECT NO:	N/A
CAD DWG FILE:	N/A
ARCH PROJECT FILE	0506.pj\0506.db\apfb.dr
DRAWN BY:	TNB
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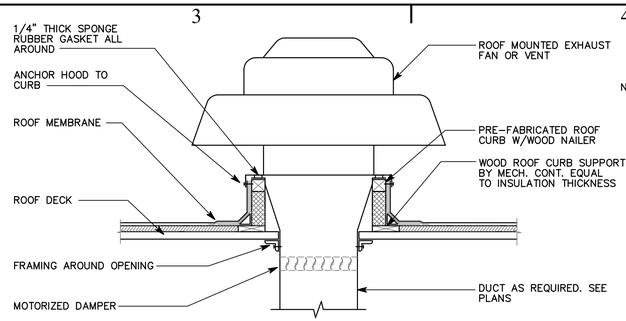
SHEET TITLE

MECHANICAL SYMBOLS LEGEND SHEET

SHEET NUMBER

M-001

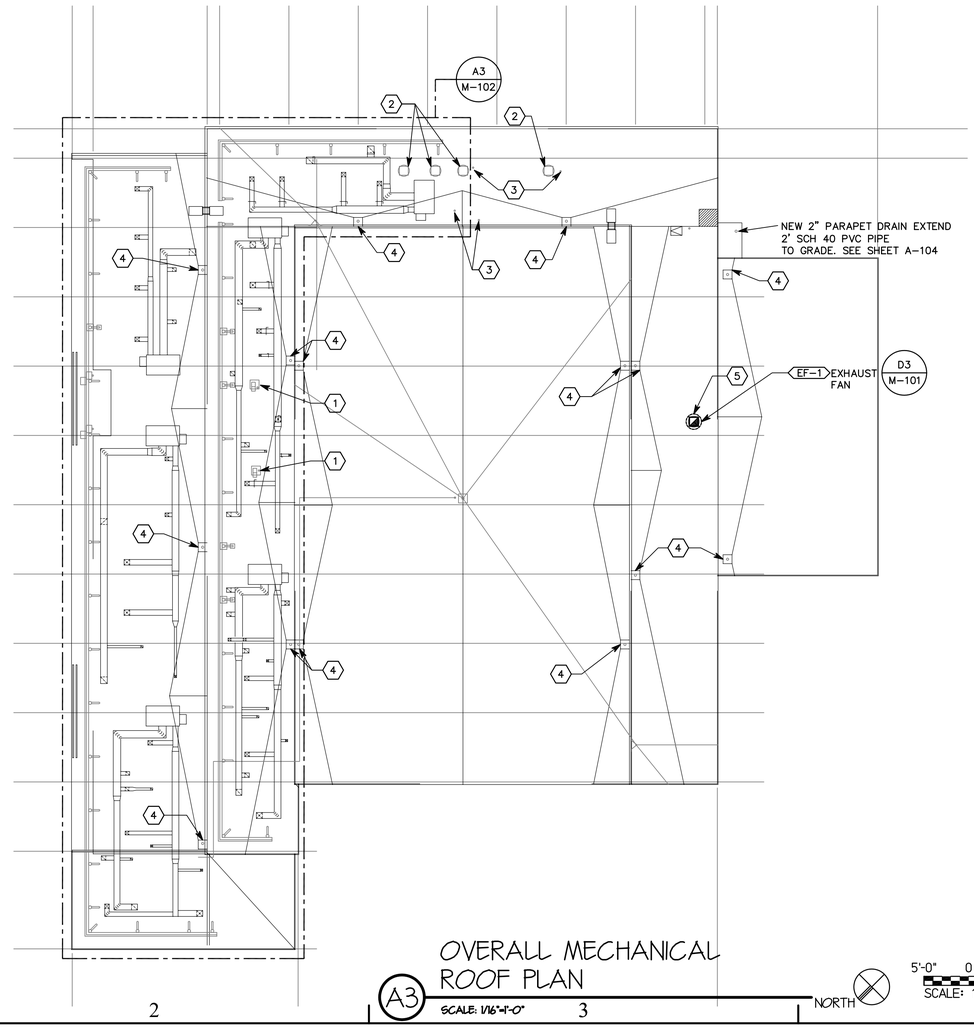
SHEET ? OF 6



NOTE: MECHANICAL EQUIPMENT TO SET LEVEL. ORDER CURB TO COMPENSATE FOR ROOF SLOPE.

D3 ROOF MOUNTED EXHASUT FAN DETAIL

SCALE: NOT TO SCALE



A3 OVERALL MECHANICAL ROOF PLAN

SCALE: 1/16"=1'-0"

NORTH

5'-0" 0 5'-0" 10'-0" 15'-0"

SCALE: 1/16"=1'-0"

SHEET KEYNOTES

1. REMOVE AND REINSTALL AND EXTEND EXISTING EXHAUST DISCHARGE GOOSENECK AS REQUIRED FOR RAISED CURB. RAISE EXISTING 4" PLUMBING VENT.
2. REMOVE AND REINSTALL EXISTING EXHAUST FAN AS REQUIRED FOR RAISED CURB. EXTEND DUCTWORK, CONTROL WIRING AND POWER WIRING AS REQUIRED.
3. EXTEND EXISTING PLUMBING VENT AS REQUIRED FOR NEW ROOF INSULATION.
4. REPLACE EXISTING ROOF DRAIN WITH NEW PRIMARY ROOF DRAIN. CONNECT TO EXISTING PIPING BELOW ROOF.
5. 18/18 EXHAUST DUCT DOWN TO EG-1.

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CONTRACT NO:	057039
CAD PROJECT NO:	N/A
CAD DWG FILE:	N/A
ARCH PROJECT FILE	0506.prj\0506.db\apfb.dr
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SHEET TITLE

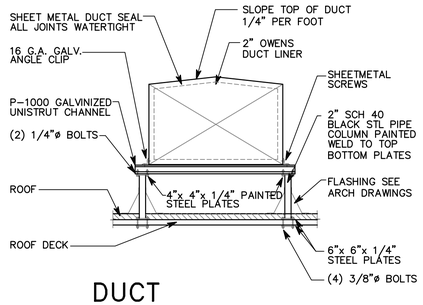
OVERALL ROOF MECHANICAL PLAN

SHEET NUMBER

M-101

SHEET ? OF 6

File name: P:\2005\20050433\1Drawings\Sheet\M-101.dwg Last Plotted: 01/25/2006 @ 11:14 By: TNB



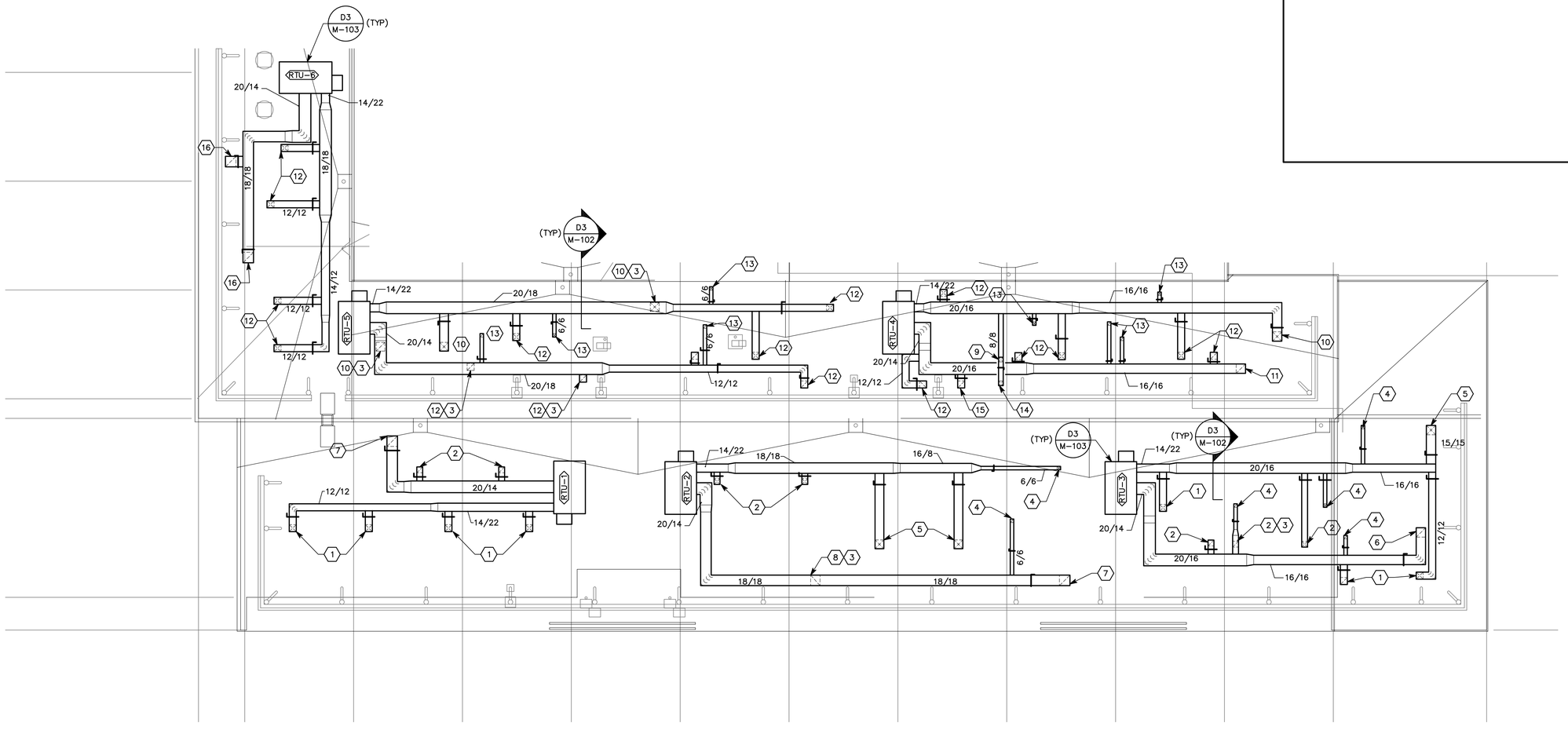
DUCT ABOVE ROOF DETAIL

D3

SCALE: NOT TO SCALE

SHEET KEYNOTES

1. 12/12 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-103.
2. 10/10 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-103.
3. INSTALL BALANCING DAMPER IN DROP.
4. 6/6 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-103.
5. 15/15 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-103.
6. 14/14 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-103.
7. 18/18 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-103.
8. 16/16 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-103.
9. RAISE SUPPLY AIR DUCT TO RUN ABOVE RETURN AIR DUCT.
10. 15/15 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-104.
11. 16/16 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-104.
12. 12/12 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-104.
13. 6/6 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-104.
14. 8/8 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-104.
15. 10/10 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-104.
16. 18/18 DOWN TO DIFFUSER OR GRILLE BELOW SEE SHEET M-104.



ROOF PLAN
MECHANICAL PLAN

A3

SCALE: 1/8"=1'-0"

5'-0" 0 5'-0" 10'-0" 15'-0"

NORTH

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SHEET TITLE

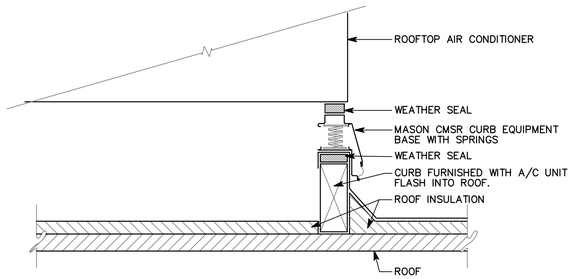
ROOF PLAN MECHANICAL PLAN

SHEET NUMBER

M-102

SHEET 2 OF 6

File name: P:\2005\2005043.33\1Drawings\Sheet\M-102.dwg Last Plotted: 01/25/2006 @ 11:13 By: TNB

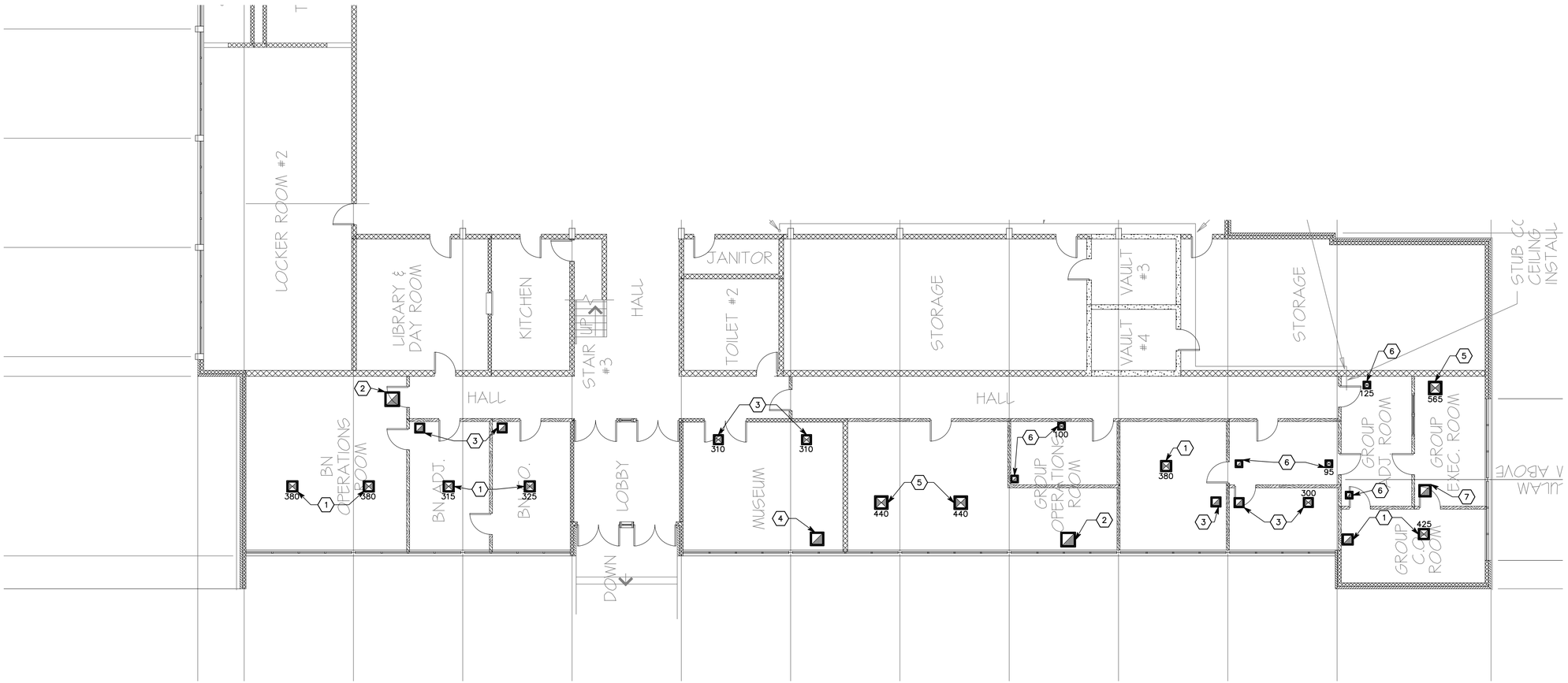


D3 ROOFTOP UNIT ON SPRING BASE DETAIL

SCALE: NOT TO SCALE

SHEET KEYNOTES

1. 12/12 UP THROUGH ROOF SEE SHEET M-102.
2. 18/18 UP THROUGH ROOF SEE SHEET M-102.
3. 10/10 UP THROUGH ROOF SEE SHEET M-102.
4. 16/16 UP THROUGH ROOF SEE SHEET M-102.
5. 15/15 UP THROUGH ROOF SEE SHEET M-102.
6. 6/6 UP THROUGH ROOF SEE SHEET M-102.
7. 14/14 UP THROUGH ROOF SEE SHEET M-102.



A3 FIRST FLOOR MECHANICAL PLAN

SCALE: 1/8"=1'-0"

5'-0" 0 5'-0" 10'-0" 15'-0"

SCALE: 1/8"=1'-0"

NORTH

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DRAWN BY:	TNB
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SHEET TITLE

FIRST FLOOR MECHANICAL PLAN

SHEET NUMBER

M-103

SHEET ? OF 6

File name: P:\2005\20050433\1Drawings\Sheet\M-103.dwg Last Plotted: 01/25/2006 @ 11:13 By: TNB

ROOFTOP PACKAGE AIR CONDITIONING UNIT SCHEDULE (COOLING ONLY)

SYMBOL	MANUFACTURER	MODEL NO.	CFM	EXT S.P.	SUPPLY FAN H.P.	COOLING MBH (6) SENSIBLE	COOLING MBH (6) TOTAL	MIN. OUTSIDE AIR SETTING	ELECTRICAL VOLTS/ PHASE/ CYCLE	ELECTRICAL UNIT CIRCUIT AMP.	COMMENTS
RTU-1	CARRIER	50PG-M04---5	1385	1	1	30000	30000	165	208/3/60	25.0	(1)(2)(3)(4)(5)
RTU-2	CARRIER	50PG-M05---5	1615	1	1	33000	33000	160	208/3/60	30.5	(1)(2)(3)(4)(5)
RTU-3	CARRIER	50PG-M06---5	1890	1	1	42000	42000	165	208/3/60	34.9	(1)(2)(3)(4)(5)
RTU-4	CARRIER	50PG-M06-H-5	2325	1	1.5	46000	46000	170	208/3/60	34.9	(1)(2)(3)(4)(5)
RTU-5	CARRIER	50PG-M06-H-5	2520	1	1.5	49000	50000	190	208/3/60	34.9	(1)(2)(3)(4)(5)
RTU-6	CARRIER	50PG-M05---5	1580	1	1	39000	39000	540	208/3/60	30.5	(1)(2)(3)(4)(5)

(1) CONDITIONS AT 4500 FEET ELEVATION
(2) COMPLETE WITH ROOF 24" HIGH ROOF CURB
(3) COMPLETE WITH 100% ECONOMIZER AND POWER EXHAUST
(4) PURON REFRIGERANT
(5) PROVIDE NON-POWERED RECEPTICAL FOR FIELD INSTALLED CONVENIENCE OUTLET
(6) MIMIMUM CAPACITY AT 91 DEG. F DB AMB.; 80 DEG. F DB, 62 DEG F WB ENT AIR TEMP

EXHAUST FAN SCHEDULE

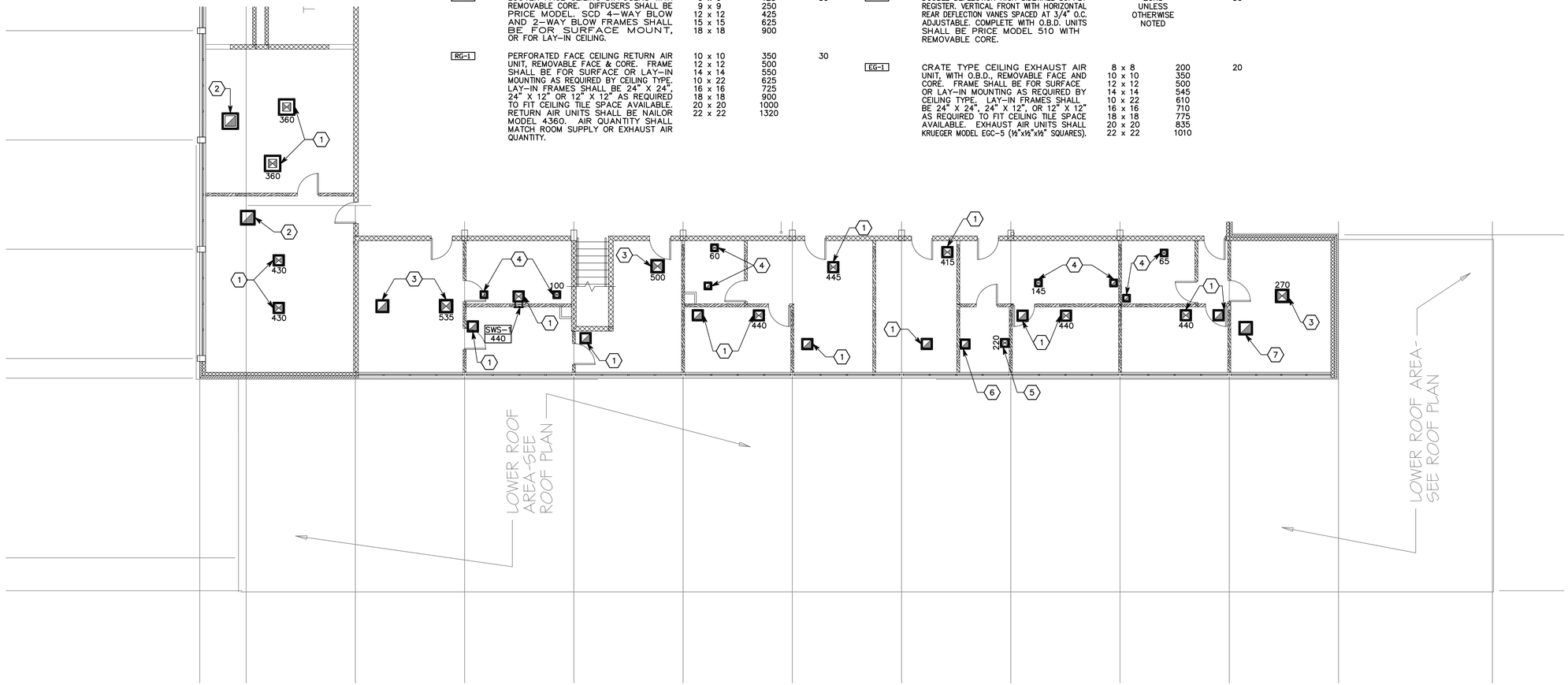
SYMBOL	MANUFACTURER	MODEL NO.	CFM	STATIC PRESSURE IN WG.	H.P.	RPM	VOLTS/ PHASE/ CYCLE	AREA SERVED	COMMENTS
EF-1	LOREN-COOK	120C3B	1000	0.5	4-Jan	1400	115/1/60	WEIGHT ROOM	(1) (2) (3)

(1) ALL CAPACITIES AT 4500 FT. ELEVATION
(2) ROOF MOUNTED EXHAUST FAN. COMPLETE WITH PRE-FAB CURB, MOTORIZED BACKDRAFT DAMPER BIRD SCREEN, INTEGRAL THERMAL OVERLOAD PROTECTION AND SERVICE DISCONNECT.
(3) CONTROL: ON-OFF WALL SWITCH BY DIV. 16

REGISTER AND GRILLE SCHEDULE

DESIGNATION	DESCRIPTION	SIZE	MAX. CFM	MAX. N.C.
CD-1	LOUVER FACE CEILING DIFFUSERS WITH REMOVABLE CORE. DIFFUSERS SHALL BE PRICE MODEL SCD 4-WAY BLOW AND 2-WAY BLOW FRAMES SHALL BE FOR SURFACE MOUNT, OR FOR LAY-IN CEILING.	6 x 6	125	30
		9 x 9	250	
		12 x 12	425	
		15 x 15	625	
		18 x 18	900	
RG-1	PERFORATED FACE CEILING RETURN AIR UNIT, REMOVABLE FACE & CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" X 24", 24" X 12" OR 12" X 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. RETURN AIR UNITS SHALL BE NAILOR MODEL 4360. AIR QUANTITY SHALL MATCH ROOM SUPPLY OR EXHAUST AIR QUANTITY.	10 x 10	350	30
		12 x 12	500	
		14 x 14	550	
		10 x 22	625	
		16 x 16	725	
		18 x 18	900	
		20 x 20	1000	
		22 x 22	1320	

DESIGNATION	DESCRIPTION	SIZE	MAX. CFM	MAX. N.C.
SWS-1	DOUBLE DEFLECTION HIGH SIDEWALL SUPPLY REGISTER. VERTICAL FRONT WITH HORIZONTAL REAR DEFLECTION VANES SPACED AT 3/4" O.C. ADJUSTABLE. COMPLETE WITH O.B.D. UNITS SHALL BE PRICE MODEL 510 WITH REMOVABLE CORE.	20X8 UNLESS OTHERWISE NOTED		30
EG-1	CRATE TYPE CEILING EXHAUST AIR UNIT, WITH O.B.D., REMOVABLE FACE AND CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" X 24", 24" X 12", OR 12" X 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. EXHAUST AIR UNITS SHALL KRUEGER MODEL EGC-5 (½"x½"x½" SQUARES).	8 x 8	200	20
		10 x 10	350	
		12 x 12	500	
		14 x 14	545	
		10 x 22	610	
		16 x 16	710	
		18 x 18	775	
		20 x 20	835	
		22 x 22	1010	



5'-0" 0 5'-0" 10'-0" 15'-0"
SCALE: 1/8"=1'-0"

A3 SECOND FLOOR MECHANICAL PLAN
SCALE: 1/8"=1'-0"

NORTH

SHEET KEYNOTES

1. 12/12 UP THROUGH ROOF SEE SHEET M-102.
2. 18/18 UP THROUGH ROOF SEE SHEET M-102.
3. 15/15 UP THROUGH ROOF SEE SHEET M-102.
4. 6/6 UP THROUGH ROOF SEE SHEET M-102.
5. 8/8 UP THROUGH ROOF SEE SHEET M-102.
6. 10/10 UP THROUGH ROOF SEE SHEET M-102.
7. 16/16 UP THROUGH ROOF SEE SHEET M-102.

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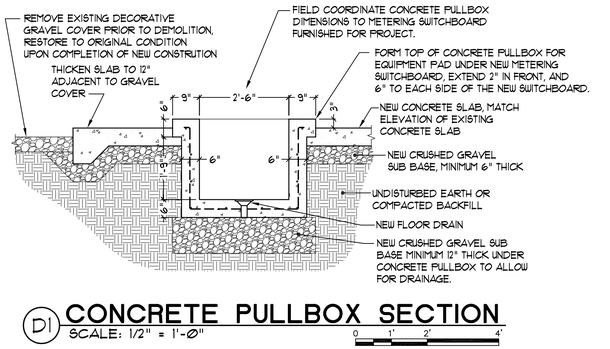
SHEET TITLE

SECOND FLOOR MECHANICAL PLAN

SHEET NUMBER

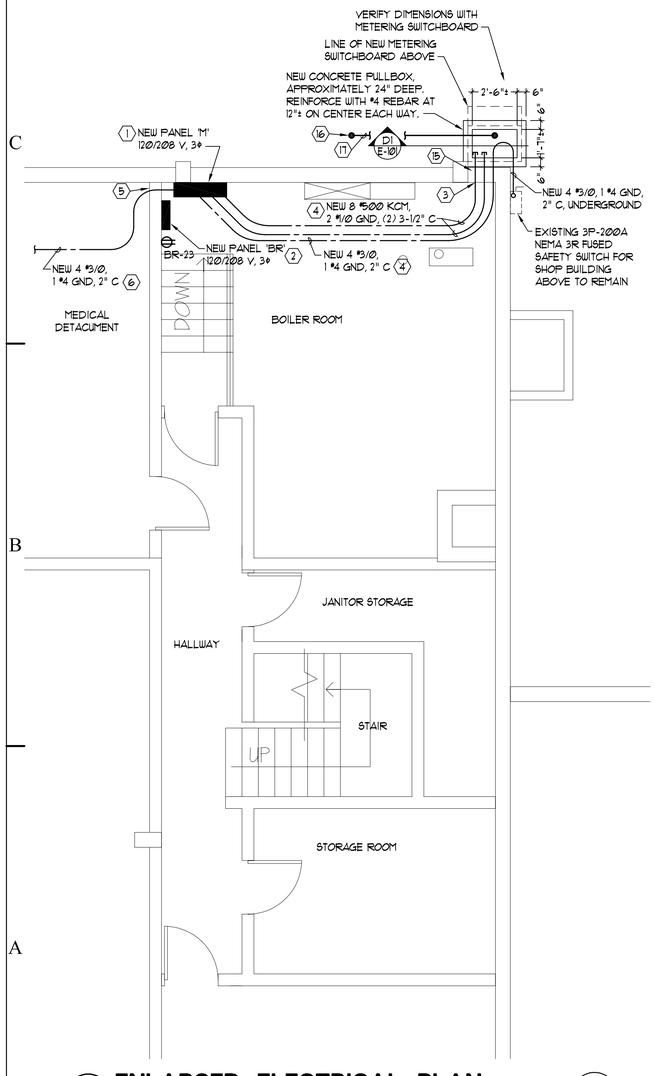
M-104

SHEET ? OF 6



D1 CONCRETE PULLBOX SECTION

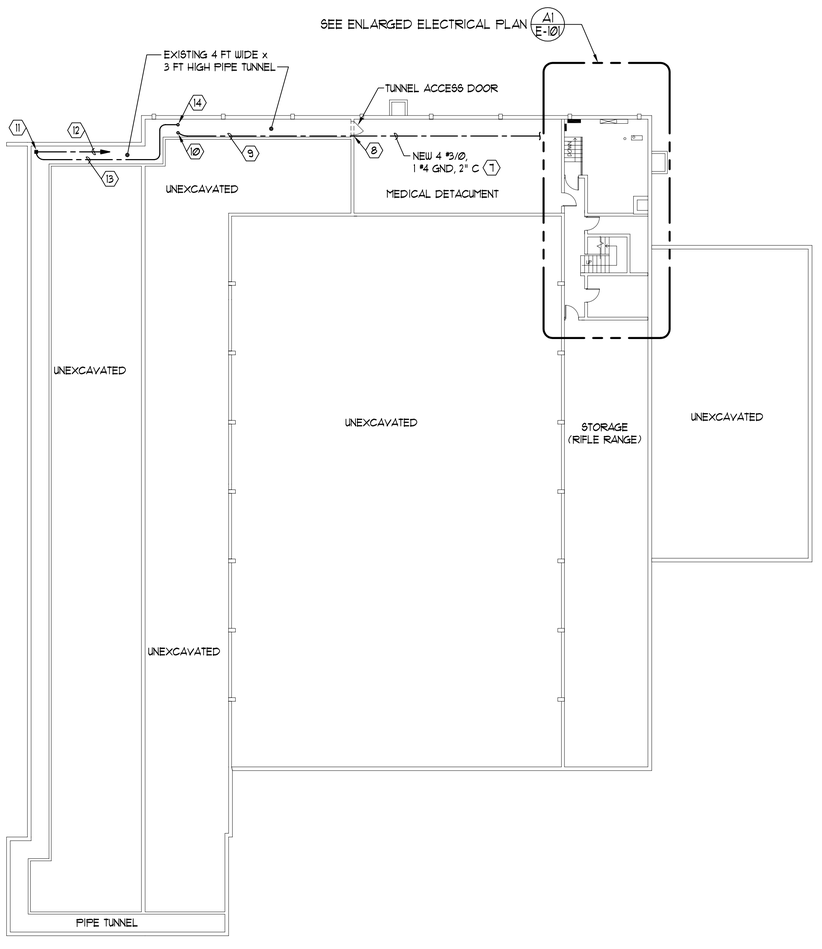
SCALE: 1/2" = 1'-0"



A1 ENLARGED ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

NORTH



A3 LOWER LEVEL ELECTRICAL PLAN

SCALE: 1/16" = 1'-0"

NORTH

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, JUNCTION BOXES, OUTLETS, EQUIPMENT, ETC., WHETHER SPECIFICALLY SHOWN OR NOT.
3. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE REPAIRS WITH THE GENERAL CONTRACTOR.
4. INDICATED NEW CONDUIT ROUTING IS APPROXIMATE ONLY. FIELD COORDINATE NEW CONDUIT ROUTING WITH EXISTING LIGHT FIXTURES, EXISTING CONDUITS, EXISTING PIPING, ETC.
5. PAINT ALL NEW EXPOSED CONDUIT TO MATCH SURROUNDING SURFACES EXCEPT CONDUIT IN BOILER ROOM WILL NOT BE REQUIRED TO BE PAINTED. COORDINATE PAINT COLOR SELECTION WITH ARCHITECT.

KEYED NOTES:

1. NEW PANEL 'M' TO REPLACE EXISTING PANEL 'M' AT THE SAME LOCATION. RECONNECT ALL EXISTING FEEDERS AS SHOWN ON POWER RISER DIAGRAMS, SHEET E-601.
2. NEW PANEL 'BR' TO REPLACE EXISTING PANEL 'BR' AT THE SAME LOCATION. RECONNECT ALL EXISTING CIRCUITS INCLUDING CIRCUITS SERVED BY SEPARATE SAFETY SWITCHES AND ENCLOSED BREAKERS. SEE POWER RISER DIAGRAMS AND PANEL SCHEDULE, SHEET E-601.
3. CORE-DRILL EXISTING EXTERIOR FOUNDATION WALL FOR NEW CONDUIT PENETRATIONS AND SEAL WATERTIGHT WITH NON-SHRINK GROUT.
4. INSTALL NEW CONDUITS BELOW EXISTING MECHANICAL PIPING AND MINIMUM 12" FROM EXISTING HOT WATER SUPPLY AND RETURN PIPING. DO NOT BLOCK ACCESS TO ANY VALVES, ETC., IN THE EXISTING PIPING.
5. CORE-DRILL AND FIRE SEAL EXISTING CONCRETE WALL FOR NEW CONDUIT PENETRATION.
6. NEW FEEDER TO NEW PANEL 'H' ON MAIN LEVEL, SEE LOWER LEVEL ELECTRICAL PLAN, THIS SHEET, FOR CONTINUATION.
7. INSTALL CONDUIT EXPOSED THROUGH EXISTING MEDICAL DETACUMENT ROOM, PAINT TO MATCH EXISTING CEILING. INSTALL MINIMUM 12" FROM EXISTING HOT WATER SUPPLY AND RETURN PIPING.
8. CORE-DRILL AND FIRE SEAL EXISTING CONCRETE WALL ABOVE EXISTING TUNNEL ACCESS DOOR FOR CONDUIT PENETRATION. LOCATE AS FAR AS POSSIBLE FROM EXISTING HOT WATER SUPPLY AND RETURN PIPING.
9. INSTALL NEW CONDUIT ON WALL OF EXISTING TUNNEL MINIMUM 12" FROM EXISTING HOT WATER SUPPLY AND RETURN PIPING.
10. CONDUIT UP TO NEW PANEL 'H' ON MAIN LEVEL ABOVE, SEE SHEET E-101. CORE-DRILL AND FIRE SEAL EXISTING CONCRETE FLOOR FOR NEW CONDUIT PENETRATION.
11. EXISTING DOMESTIC WATER MAIN ENTRANCE TO BUILDING IN PIPE TUNNEL. FIELD VERIFY EXACT LOCATION.
12. NEW #3/0 INSULATED GROUNDING ELECTRODE CONDUCTOR, 1-1/2" C FROM EXISTING WATER MAIN TO GROUND BUS IN NEW METERING SWITCHBOARD. INSTALL CONDUIT AS REQUIRED FOR NEW FEEDER CONDUIT TO NEW PANEL 'H' INCLUDING, DRILLING, PAINTING, ETC.
13. NEW #8 GND, 3/4" FROM EXISTING WATER MAIN TO NEW ANTENNA MASTS IN ACCORDANCE WITH NEC 810-15 AND 810-21.
14. CONDUIT UP TO MAIN LEVEL, SEE SHEET E-102 FOR CONTINUATION. CORE-DRILL AND FIRE SEAL EXISTING CONCRETE FLOOR FOR NEW CONDUIT PENETRATION.
15. PROVIDE (2) 1-1/2" CONDUITS THROUGH EXISTING EXTERIOR FOUNDATION WALL FOR NEW GROUNDING ELECTRODE AND BONDING CONDUCTORS (NOT SHOWN).
16. NEW 3/4" x 10'-0" COPPER GROUND RODS. INSTALL GROUND ROD IN CONCRETE PULLBOX 6"± ABOVE PULLBOX FLOOR TO TOP OF ROD AND PROVIDE #3/0 BARE COPPER GROUND CONDUCTOR TO NEW METERING SWITCHBOARD GROUND BUS.
17. NEW #3/0 BARE COPPER GROUND CONDUCTOR BURIED 24" BELOW GRADE. CONNECT TO GROUND RODS BY EXOTHERMIC WELD.

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REGISTERED PROFESSIONAL ENGINEER RAYMOND G KOLKMAN 175780 STATE OF UTAH

PROJECT TITLE:

Ogden Armory-Roofing Improvements

OWNER:

State of Utah-DFCM

Utah National Guard

Salt Lake City, Utah

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCUMENTS

ISSUE DATE: JAN. 30, 2006

DFCM PROJECT NO:	05040470
CONTRACT NO:	057039
CAD PROJECT NO:	N/A
CAD DWG FILE:	E-101.dwg
ARCH PROJECT FILE:	0505.p\0505.db\cps.dr
DRAWN BY:	W.B.G.
CHK'D BY:	R.G.K.
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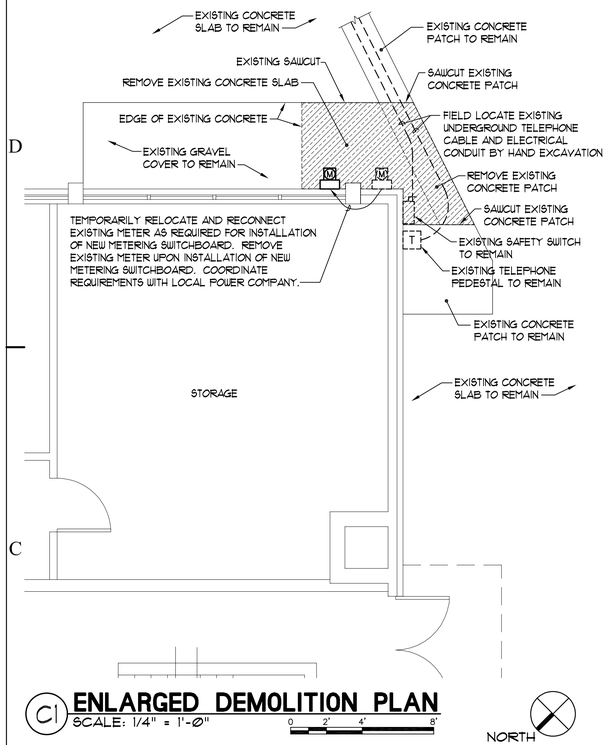
SHEET TITLE

LOWER LEVEL ELECTRICAL PLAN

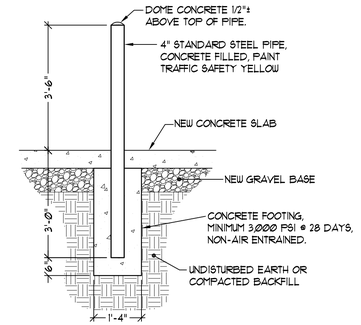
SHEET NUMBER

E-101

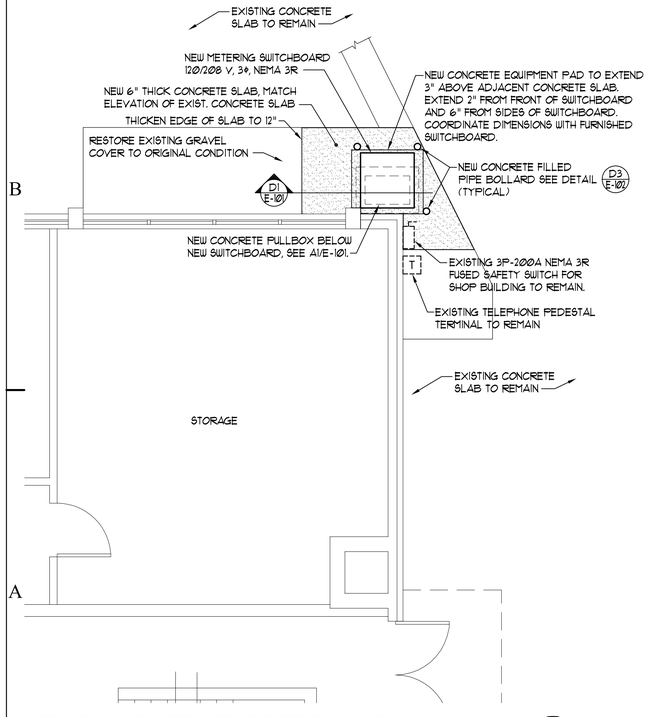
SHEET OF



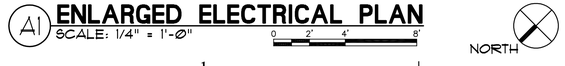
C1 ENLARGED DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

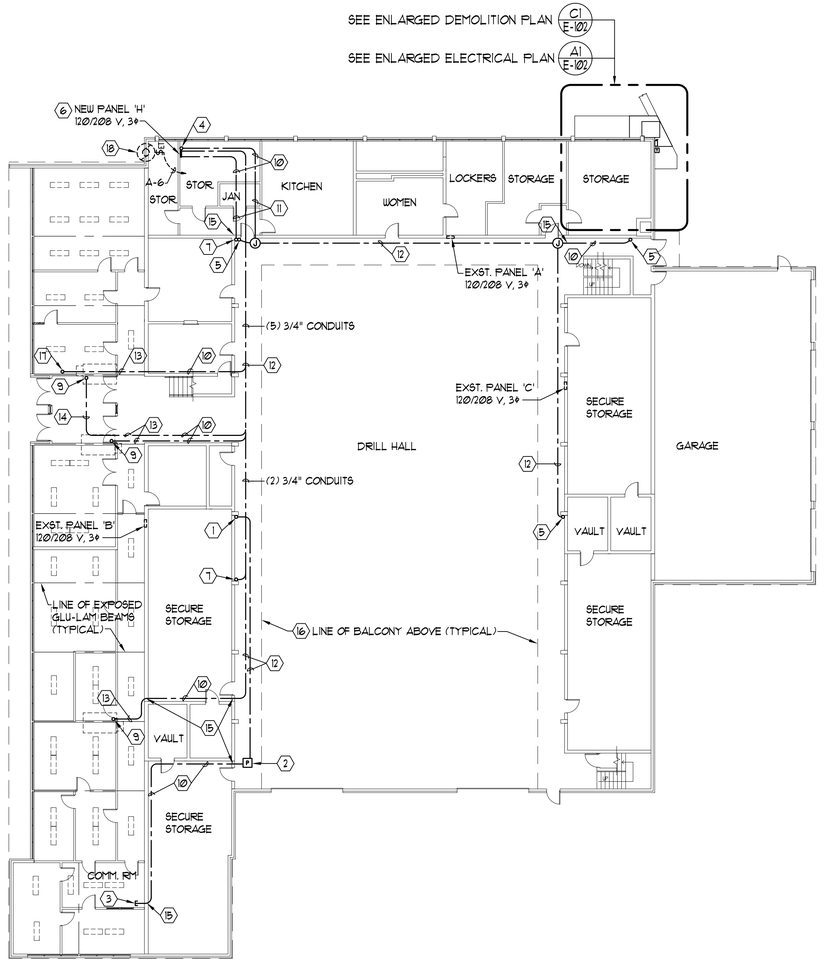


D3 PIPE BOLLARD DETAIL
SCALE: 1/2" = 1'-0"



A1 ENLARGED ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"





A3 FIRST FLOOR ELECTRICAL PLAN
SCALE: 1/16" = 1'-0"

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, JUNCTION BOXES, OUTLETS, EQUIPMENT, ETC., WHETHER SPECIFICALLY SHOWN OR NOT.
3. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE REPAIRS WITH THE GENERAL CONTRACTOR.
4. COORDINATE NEW MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL PLANS AND MECHANICAL CONTRACTOR.
5. INDICATED NEW CONDUIT ROUTING IS APPROXIMATE ONLY. FIELD COORDINATE NEW CONDUIT ROUTING WITH EXISTING LIGHT FIXTURES, EXISTING CONDUITS, EXISTING PIPING, ETC.
6. PAINT ALL NEW EXPOSED CONDUIT TO MATCH SURROUNDING SURFACES INCLUDING DECORATIVE PAINT BANDS ON EXISTING WALLS. COORDINATE PAINT COLOR SELECTION WITH ARCHITECT.

KEYED NOTES:

(1) NEW 1-1/4" ANTENNA CONDUIT WITH PULL STRING FROM SECOND LEVEL, SEE SHEET E-103 FOR CONTINUATION.

(2) PROVIDE MINIMUM 12" x 12" x 6" PULLBOXES AS REQUIRED FOR NEW ANTENNA CONDUIT RUN.

(3) TERMINATE ANTENNA CONDUIT WITH INSULATED BUSHING IN EXISTING COMMUNICATION OFFICE. FIELD COORDINATE EXACT LOCATION WITH ARCHITECT AND UTAH NATIONAL GUARD.

(4) NEW #8 ANTENNA GROUND, 3/4" CONDUIT, FROM PIPE TUNNEL BELOW. SEE SHEET E-101 FOR CONTINUATION.

(5) NEW #8 ANTENNA GROUND, 3/4" CONDUIT UP TO SECOND LEVEL. SEE SHEET E-103 FOR CONTINUATION.

(6) INSTALL NEW PANEL 'H' ADJACENT TO EXISTING SHELVING TO AVOID EXISTING PIPING ABOVE THE PANEL LOCATION. SEE SHEET E-101 FOR ROUTING OF NEW FEEDER CONDUIT FROM PIPING TUNNEL BELOW.

(7) (2) 3/4" CONDUITS UP TO SECOND LEVEL FOR ROOFTOP AIR CONDITIONING UNITS ON MID-LEVEL ROOF. SEE SHEET E-103 FOR CONTINUATION.

(8) 3/4" CONDUIT UP TO SECOND LEVEL FOR NEW ROOFTOP AIR CONDITIONING UNIT ON MID-LEVEL ROOF. SEE SHEET E-103 FOR CONTINUATION.

(9) 3/4" CONDUIT THROUGH EXISTING WOOD DECK ROOF TO NEW ROOFTOP AIR CONDITIONING UNIT ON LOW-LEVEL ROOF. INSTALL CONDUIT WITHIN AREA OF NEW ROOF CURB. SEE SHEET E-104 FOR CONTINUATION.

(10) INSTALL NEW CONDUIT EXPOSED ON EXISTING CONCRETE PAN CEILING AND PAINT TO MATCH CEILING.

(11) INSTALL NEW CONDUIT CONCEALED ABOVE EXISTING CEILINGS.

(12) INSTALL NEW CONDUITS EXPOSED ON BOTTOM OF EXISTING BALCONY AND PAINT TO MATCH EXISTING CEILING.

(13) INSTALL NEW CONDUIT EXPOSED ON SIDE OF EXPOSED GLU-LAM BEAM AND PAINT TO MATCH BEAM.

(14) INSTALL NEW CONDUIT EXPOSED ON BOTTOM OF EXPOSED WOOD ROOF DECK CEILING AND PAINT TO MATCH CEILING.

(15) DRILL EXISTING MASONRY BLOCK WALL BELOW EXISTING BOND BEAM FOR NEW CONDUIT PENETRATION. FIRE SEAL NEW CONDUIT PENETRATION.

(16) DRILL EXISTING CONCRETE BALCONY FOR NEW CONDUIT PENETRATIONS TO SECOND LEVEL BEING CAREFUL NOT TO CUT THROUGH EXISTING REINFORCING STEEL. SEAL CONDUIT PENETRATION WITH NON-SHRINK GROUT PAINTED TO MATCH SURROUNDING SURFACES.

(17) 3/4" CONDUIT THROUGH EXISTING WOOD DECK ROOF TO NEW FLAGPOLE FLOODLIGHTS ON LOW-LEVEL ROOF. SEE SHEET E-104 FOR CONTINUATION.

(18) REMOVE EXISTING ELECTRICAL SERVICE TO EXISTING WALL MOUNTED EXHAUST FAN TO BE REMOVED INCLUDING ALL ABANDONED WIRING, CONDUIT, BOXES, ETC..

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REGISTERED PROFESSIONAL ENGINEER
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Salt Lake City, Utah

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ARCH PROJECT FILE:	0505.prj\0505.db\cps.dr
DRAWN BY:	W.B.G.
CHK'D BY:	R.G.K.
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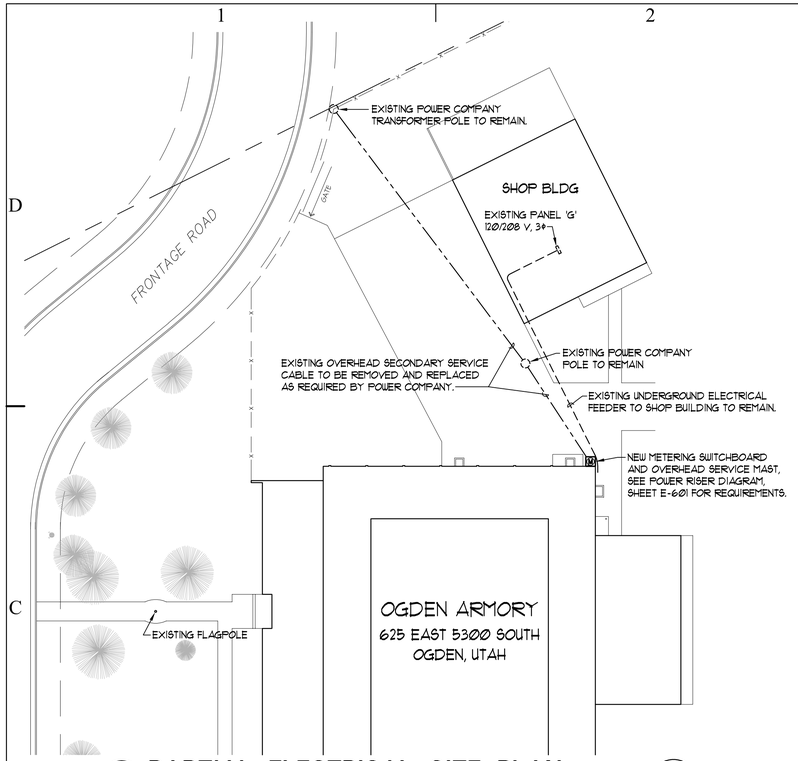
SHEET TITLE

FIRST FLOOR ELECTRICAL PLAN

SHEET NUMBER

E-102

SHEET OF

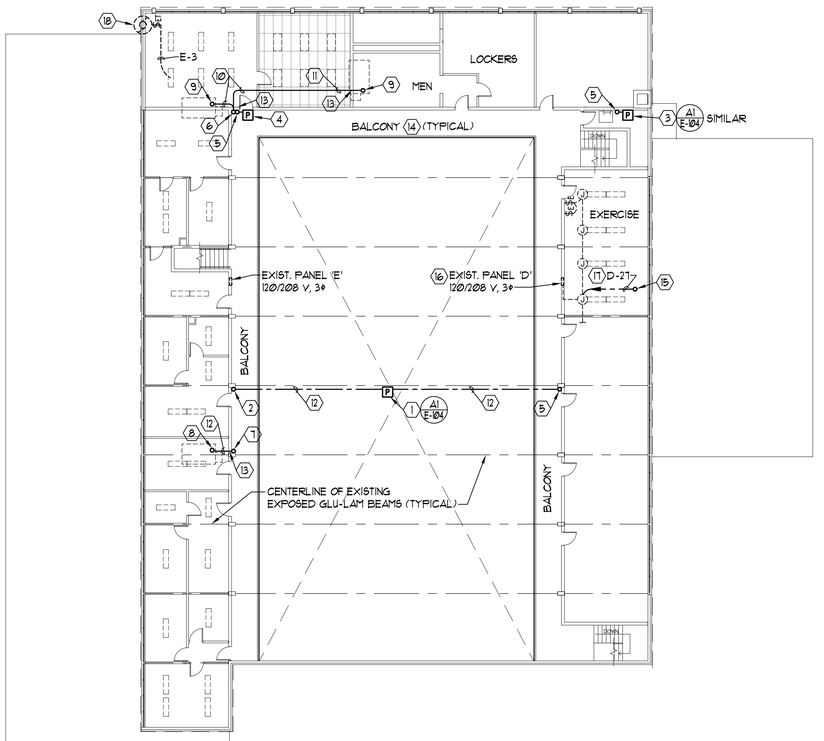


C1 **PARTIAL ELECTRICAL SITE PLAN**
SCALE: 1" = 30'-0"
0 10' 30' 60'

NORTH

SYMBOL LIST

SYMBOL	DESCRIPTION
	NEW FLOODLIGHT
	EXISTING FLOODLIGHT
P	NEW PHOTOCELL
J	NEW JUNCTION BOX
P	NEW PULL BOX
	NEW DUPLEX RECEPTACLE
	EXISTING DUPLEX RECEPTACLE
GFI	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
A-13 3/4"	3 PHASE, 4 WIRE HOMERUN INDICATING PANEL AND CIRCUIT NUMBERS
	NEW BRANCH CIRCUIT CONCEALED ABOVE EXISTING CEILING
	NEW BRANCH CIRCUIT EXPOSED ON WALL OR CEILING, PAINT TO MATCH
	EXISTING BRANCH CIRCUIT
	NEW PANELBOARD
	EXISTING PANELBOARD
	NEW MOTOR
	EXISTING MOTOR
$TH	NEW MANUAL MOTOR STARTING SWITCH WITH THERMAL OVERLOAD PROTECTION
$ET	EXISTING SINGLE POLE MANUAL MOTOR DISCONNECT SWITCH
NF	EXISTING SAFETY SWITCH, 'F' INDICATES FUSED, 'NF' INDICATES NON-FUSED
F	NEW SAFETY SWITCH, 'F' INDICATES FUSED, 'NF' INDICATES NON-FUSED
1	KEYED NOTE SYMBOL
RTU-1	EQUIPMENT SCHEDULE SYMBOL
F-1	FIXTURE SCHEDULE SYMBOL
A1 / E-101	DETAIL OR SECTION NUMBER DESIGNATED BY SHEET COORDINATES SHEET ON WHICH DETAIL OR SECTION IS SHOWN
WP	INDICATES ITEM IN WEATHERPROOF (NEMA 3R MINIMUM) ENCLOSURE



A3 **SECOND FLOOR ELECTRICAL PLAN**
SCALE: 1/16" = 1'-0"
0 8' 16' 32'

NORTH

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, JUNCTION BOXES, OUTLETS, EQUIPMENT, ETC., WHETHER SPECIFICALLY SHOWN OR NOT.
3. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE REPAIRS WITH THE GENERAL CONTRACTOR.
4. COORDINATE NEW MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL PLANS AND MECHANICAL CONTRACTOR.
5. INDICATED NEW CONDUIT ROUTING IS APPROXIMATE ONLY. FIELD COORDINATE NEW CONDUIT ROUTING WITH EXISTING LIGHT FIXTURES, EXISTING CONDUITS, EXISTING PIPING, ETC.
6. PAINT ALL NEW EXPOSED CONDUIT TO MATCH SURROUNDING SURFACES INCLUDING DECORATIVE PAINT BANDS ON EXISTING WALLS. COORDINATE PAINT COLOR SELECTION WITH ARCHITECT.

KEYED NOTES:

1. NEW PULLBOX FOR NEW ANTENNA MAST ON HIGH ROOF. MOUNT PULLBOX ON SIDE OF EXISTING GLU-LAM BEAM AND PAINT TO MATCH BEAM.
2. NEW 1-1/4" ANTENNA CONDUIT WITH PULL STRING DOWN TO FIRST LEVEL, SEE SHEET E-102 FOR CONTINUATION.
3. NEW PULLBOX AND ANTENNA MAST FOR EXISTING SATELLITE DISH, SIMILAR TO DETAIL A1/E-104 EXCEPT WITH MINIMUM 8" x 8" x 4" SCREW COVER PULLBOX. EXISTING COMMUNICATION CABLES WILL BE RELOCATED TO NEW PULLBOX BY UTAH NATIONAL GUARD.
4. NEW 8" x 8" x 4" SCREW COVER PULLBOX FOR RADIO ANTENNA. MOUNT 12 FT± ABOVE SECOND LEVEL FLOOR. PROVIDE 1" CONDUIT THROUGH EXTERIOR CONCRETE BLOCK WALL AND TERMINATE WITH WEATHERHEAD ABOVE MID-LEVEL ROOF. SEAL CONDUIT PENETRATION THROUGH WALL WATERTIGHT WITH NON-SHRINK GROUT TO MATCH EXTERIOR BRICK COLOR. PAINT PULLBOX TO MATCH INTERIOR WALL.
5. NEW #8 ANTENNA GROUND, 3/4" CONDUIT, FROM FIRST LEVEL BELOW. SEE SHEET E-102 FOR CONTINUATION.
6. (2) 3/4" CONDUITS FROM FIRST LEVEL FOR ROOFTOP AIR CONDITIONING UNITS ON MID-LEVEL ROOF. SEE SHEET E-102 FOR CONTINUATION.
7. 3/4" CONDUIT FROM FIRST LEVEL FOR NEW ROOFTOP AIR CONDITIONING UNIT ON MID-LEVEL ROOF. SEE SHEET E-102 FOR CONTINUATION.
8. 3/4" CONDUIT THROUGH EXISTING WOOD DECK ROOF TO NEW ROOFTOP AIR CONDITIONING UNIT ON MID-LEVEL ROOF. INSTALL CONDUIT WITHIN AREA OF NEW ROOF CURB. SEE SHEET E-104 FOR CONTINUATION.
9. 3/4" CONDUIT THROUGH EXISTING CONCRETE PAN ROOF TO NEW ROOFTOP AIR CONDITIONING UNIT ON MID-LEVEL ROOF. INSTALL CONDUIT WITHIN AREA OF NEW ROOF CURB. SEE SHEET E-104 FOR CONTINUATION.
10. INSTALL NEW CONDUIT EXPOSED ON EXISTING CONCRETE PAN CEILING AND PAINT TO MATCH CEILING.
11. INSTALL NEW CONDUIT CONCEALED ABOVE EXISTING CEILINGS.
12. INSTALL NEW CONDUIT EXPOSED ON SIDE OF EXPOSED GLU-LAM BEAM AND PAINT TO MATCH BEAM.
13. DRILL EXISTING MASONRY BLOCK WALL BELOW EXISTING BOND BEAM FOR NEW CONDUIT PENETRATION. FIRE SEAL NEW CONDUIT PENETRATION.
14. DRILL EXISTING CONCRETE BALCONY FOR NEW CONDUIT PENETRATIONS TO FIRST LEVEL BEING CAREFUL NOT TO CUT THROUGH EXISTING REINFORCING STEEL. SEAL CONDUIT PENETRATION WITH NON-SHRINK GROUT PAINTED TO MATCH SURROUNDING SURFACES.
15. NEW 3/4" CONDUIT THROUGH EXISTING WOOD DECK ROOF TO NEW ROOFTOP EXHAUST FAN. EXTEND CONDUIT TO EXISTING SURFACE MOUNTED CONDUIT FOR LIGHTING IN EXERCISE ROOM. PROVIDE NEW WIRING IN EXISTING CONDUIT TO NEW 1P-15A BREAKER IN EXISTING PANEL 'D'.
16. PROVIDE NEW 1P-15A GENERAL ELECTRIC TYPE 'THQB' BRANCH CIRCUIT BREAKER IN EXISTING PANEL 'D' TO SERVE NEW ROOFTOP EXHAUST FAN EF-1. PROVIDE NEW TYPEWRITTEN CIRCUIT INDEX TO REFLECT ALL CHANGES IN CIRCUITING.
17. INSTALL NEW CONDUIT EXPOSED ON BOTTOM OF EXPOSED WOOD ROOF DECK CEILING AND PAINT TO MATCH CEILING.
18. REMOVE EXISTING ELECTRICAL SERVICE TO EXISTING WALL MOUNTED EXHAUST FAN TO BE REMOVED INCLUDING ALL ABANDONED WIRING, CONDUIT, BOXES, ETC.

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9/30/06
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SHEET TITLE

SECOND FLOOR AND PARTIAL SITE ELECTRICAL PLANS

SHEET NUMBER

E-103

SHEET OF

FIXTURE SCHEDULE

SYMBOL	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LAMP
F-1	GARDCO GE LIGHTING INVUE LITHONIA LSI INDUSTRIES STERNER	DF7-SM-NSP-100MH-120-NP-BD/PTA CFSX-10M-M-O-H-1-4-GREY-K/ BDA-BLCK-CFSX VFS-K-100MH-120-NS-SF-BD-AP KLF2-100M-SP-120-DNA-BD DRS-SP15-100MH-FP-MT-PLP/PT-BD PL6-100MH-SP-120-C-SW-N-BD-AL	METAL HALIDE ARCHITECTURAL FLOODLIGHT WITH CAST ALUMINUM HOUSING, NATURAL ALUMINUM PAINT FINISH, NARROW SPOT LIGHT DISTRIBUTION, BARN DOOR VISOR, 120 VOLT HIGH POWER FACTOR BALLAST AND POLE TOP ADAPTOR FOR 2-3/8" OD PIPE.	100 W MH ED-17

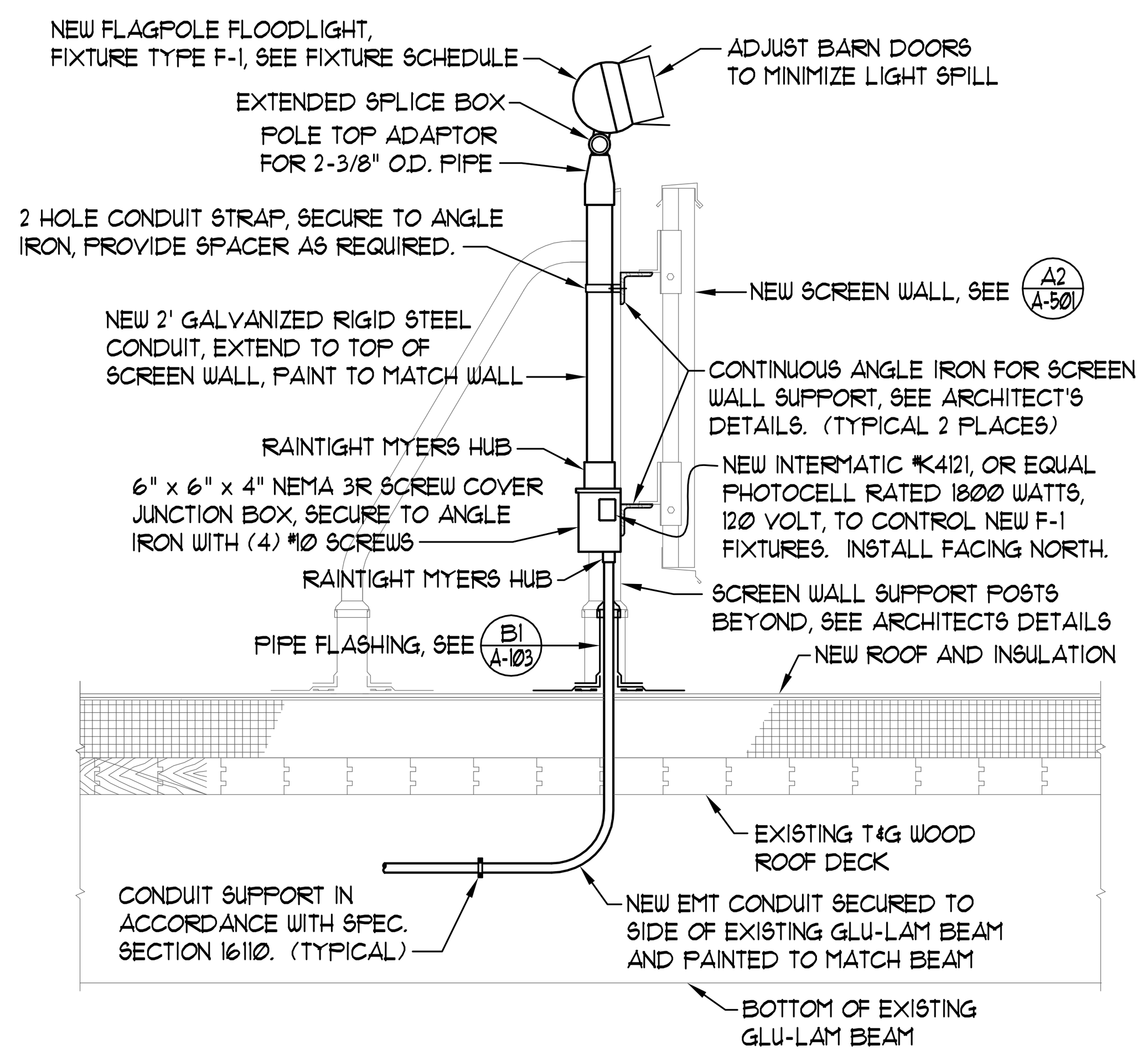
EQUIPMENT SCHEDULE

EQUIP. NO.	DESCRIPTION	CIRCUIT NUMBER	VOLTS	PHASE	WATTS H.P.	BREAKER	STARTERS			AUX. CONT.	LOCATION
							FURNISH	INSTALL	SIZE		
RTU-1	ROOFTOP AC UNIT	H-13	208	3	18.7 AMPS	3P-25A (NOTE 1)	M	M	M	-	LOW ROOF
RTU-2	ROOFTOP AC UNIT	H-19	208	3	22.1 AMPS	3P-30A (NOTE 1)	M	M	M	-	LOW ROOF
RTU-3	ROOFTOP AC UNIT	H-25	208	3	25.7 AMPS	3P-35A (NOTE 1)	M	M	M	-	LOW ROOF
RTU-4	ROOFTOP AC UNIT	H-26	208	3	25.7 AMPS	3P-35A (NOTE 1)	M	M	M	-	MID LEVEL ROOF
RTU-5	ROOFTOP AC UNIT	H-20	208	3	25.7 AMPS	3P-35A (NOTE 1)	M	M	M	-	MID LEVEL ROOF
RTU-6	ROOFTOP AC UNIT	H-14	208	3	22.1 AMPS	3P-30A (NOTE 1)	M	M	M	-	MID LEVEL ROOF
EF-1	ROOFTOP EXHAUST FAN	D-27	120	1	1/6 HP	1P-15A	E	E	$WP TH	-	MID LEVEL ROOF

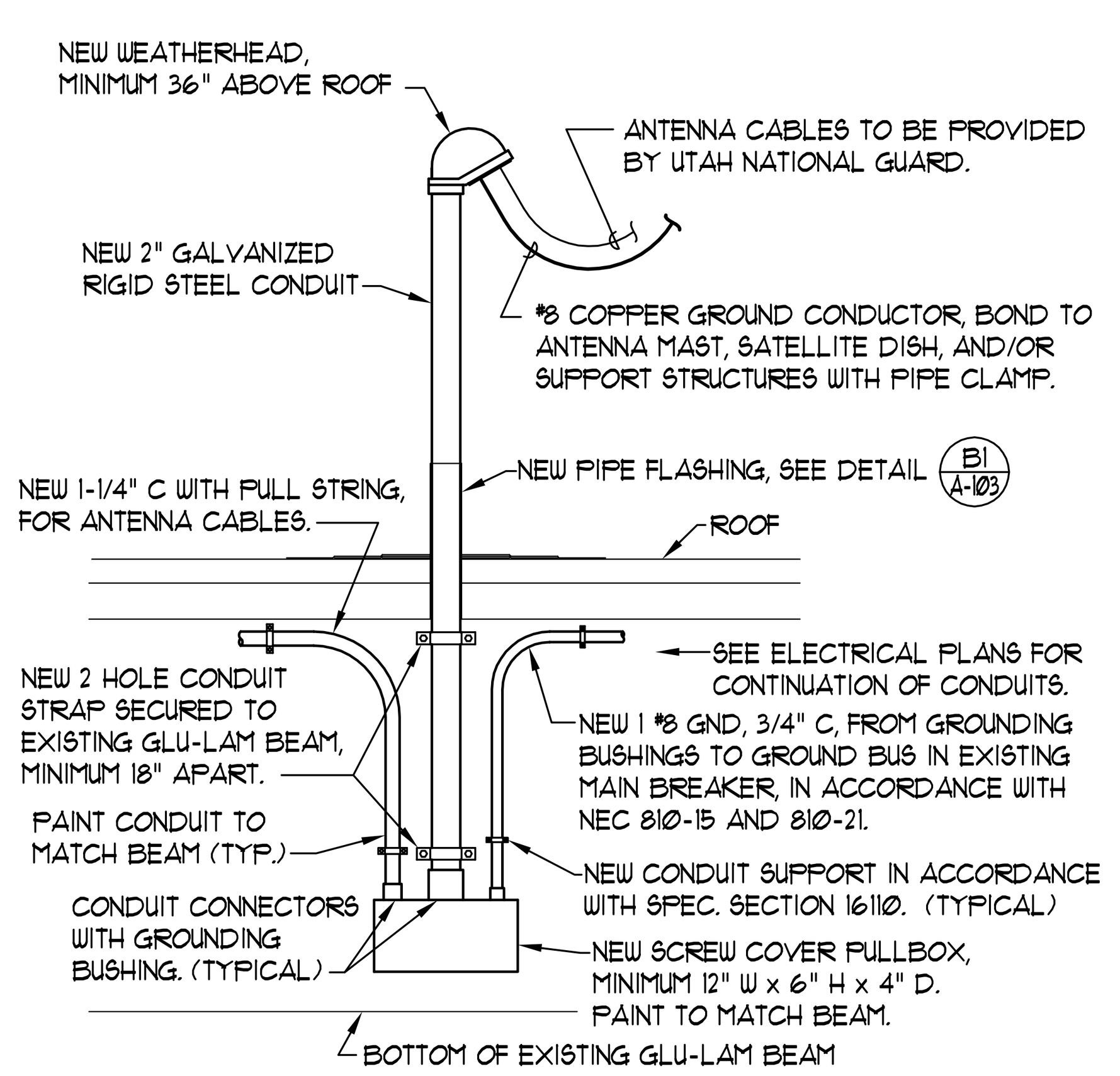
E - ELECTRICAL CONTRACTOR
M - MECHANICAL CONTRACTOR

NOTES:

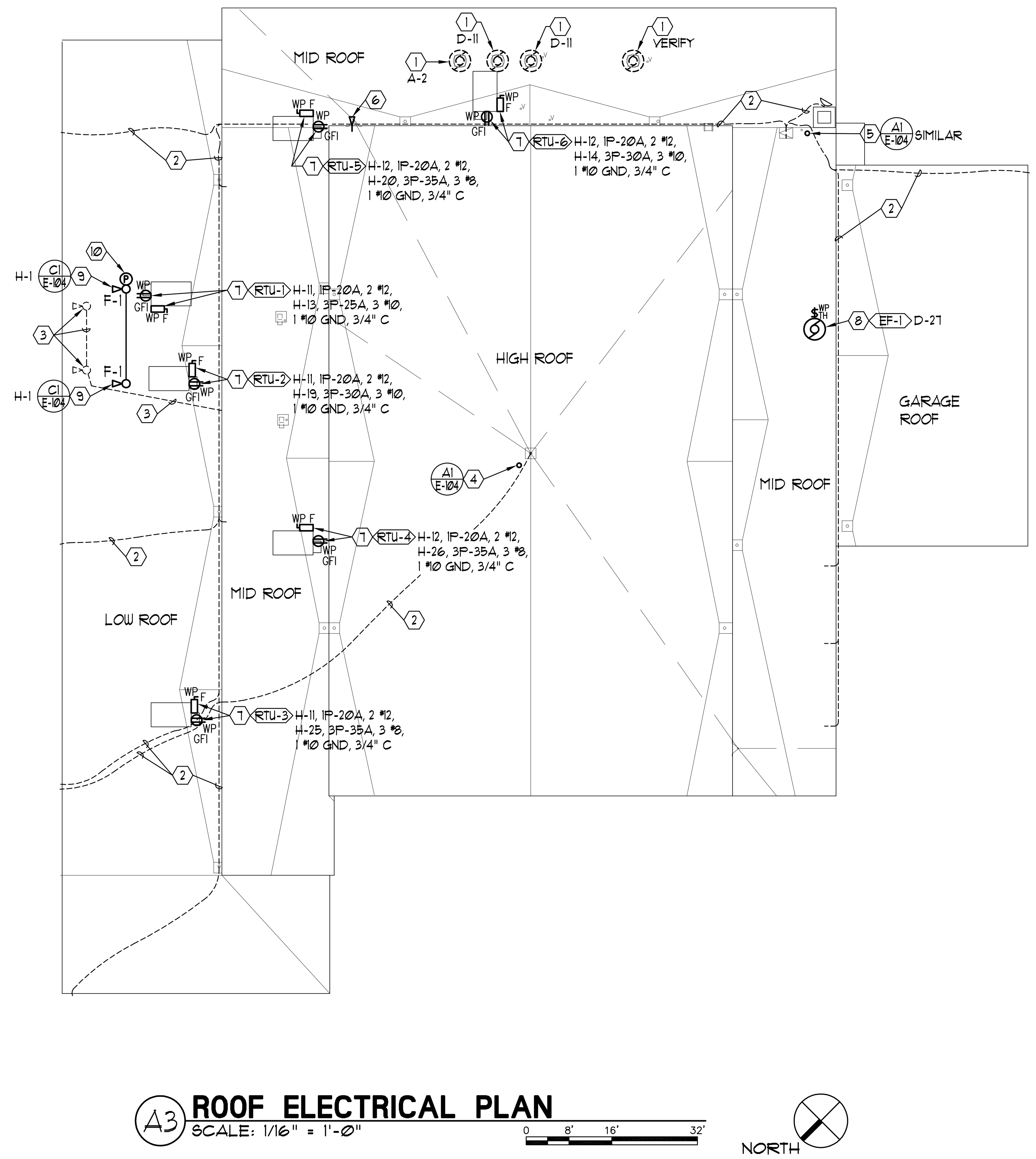
1. BREAKER/FUSE RATING BASED ON SPECIFIED CARRIER ROOFTOP UNITS PUBLISHED LITERATURE. PROVIDE BREAKER/FUSE RATING IN ACCORDANCE WITH ROOFTOP UNIT NAMEPLATE FURNISHED TO JOB SITE. COORDINATE WITH MECHANICAL CONTRACTOR.



C1 FLOODLIGHT MOUNTING DETAIL
SCALE: 3/4" = 1'-0"



A1 ANTENNA MAST DETAIL
SCALE: 3/4" = 1'-0"



A3 ROOF ELECTRICAL PLAN
SCALE: 1/16" = 1'-0"

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, JUNCTION BOXES, OUTLETS, EQUIPMENT, ETC., WHETHER SPECIFICALLY SHOWN OR NOT.
3. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE REPAIRS WITH THE GENERAL CONTRACTOR.
4. COORDINATE NEW MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL PLANS AND MECHANICAL CONTRACTOR.
5. INDICATED NEW CONDUIT ROUTING IS APPROXIMATE ONLY. FIELD COORDINATE NEW CONDUIT ROUTING WITH EXISTING LIGHT FIXTURES, EXISTING CONDUITS, EXISTING PIPING, ETC..
6. COORDINATE EXISTING ROOFTOP EQUIPMENT LOCATIONS WITH ARCHITECTURAL ROOF PLAN, SHEET A-101.
7. REPLACE ALL EXISTING LIQUID-TIGHT FLEXIBLE CONDUIT AT EXISTING EQUIPMENT CONNECTIONS ON ROOF WITH NEW LIQUID-TIGHT FLEXIBLE STEEL CONDUIT.

KEYED NOTES:

1. DISCONNECT ELECTRICAL SERVICE TO EXISTING ROOFTOP EXHAUST FAN TO ALLOW EQUIPMENT REMOVAL AND INSTALLATION OF NEW ROOF. RECONNECT ELECTRICAL SERVICE UPON REINSTALLATION OF EQUIPMENT. EQUIPMENT WILL BE RAISED FOR INSTALLATION OF NEW ROOF. EXTEND EXISTING CONDUIT TO RAISED EQUIPMENT AND PROVIDE NEW CONDUCTORS OF SUFFICIENT LENGTH REQUIRED TO RECONNECT THE EQUIPMENT.
2. REMOVE EXISTING ANTENNA CABLES AND REPAIR EXISTING WINDOW FRAME AND/OR EXTERIOR WALL PENETRATIONS AS REQUIRED TO MATCH SURROUNDING SURFACES WHERE CABLES ARE REMOVED. COORDINATE REQUIREMENTS WITH ARCHITECT, GENERAL CONTRACTOR, AND UTAH NATIONAL GUARD.
3. REMOVE EXISTING FLAGPOLE FLOODLIGHTS INCLUDED ALL ASSOCIATED WIRING, CONDUIT, BOXES, ETC.. REPAIR EXISTING WALL TO MATCH SURROUNDING SURFACES AT EXISTING CONDUIT PENETRATION.
4. NEW WEATHERHEAD MAST AS SHOWN ON DETAIL A1/E-104 FOR HIGH ROOF ANTENNA. PROVIDE 1-1/4" CONDUIT WITH PULL STRING TO EXISTING COMMUNICATION ROOM. SEE SHEET E-103 FOR CONTINUATION OF CONDUIT INSIDE OF BUILDING.
5. NEW WEATHERHEAD MAST FOR EXISTING SATELLITE DISH, SIMILAR TO DETAIL A1/E-104 EXCEPT WITH MINIMUM 8" x 8" x 4" SCREW COVER PULLBOX. EXISTING COMMUNICATION CABLES WILL BE RELOCATED TO NEW PULLBOX BY UTAH NATIONAL GUARD. SEE SHEET E-103 FOR LOCATION OF INTERIOR PULLBOX.
6. NEW WEATHERHEAD FOR RADIO ANTENNA 12"± BELOW HIGH LEVEL ROOF. PROVIDE 1" CONDUIT THROUGH EXTERIOR CONCRETE BLOCK WALL TO NEW PULLBOX ON INTERIOR OF BUILDING AS SHOWN ON SHEET E-103. SEAL CONDUIT PENETRATION THROUGH WALL WATERTIGHT WITH NON-SHRINK GROUT TO MATCH EXTERIOR BRICK COLOR.
7. NEW PACKAGED ROOFTOP AIR CONDITIONING UNIT, SEE MECHANICAL PLANS. PROVIDE NEW WEATHERPROOF HEAVY DUTY FUSED SAFETY SWITCH, NEW WEATHERPROOF GFCI RECEPTACLE, AND NEW ELECTRICAL SERVICE AS SHOWN. PROVIDE FUSE SIZE IN ACCORDANCE WITH ROOFTOP UNIT NAMEPLATE. SEE SHEETS E-102 AND E-103 FOR CONDUIT PENETRATIONS THROUGH ROOF. FIELD COORDINATE SAFETY SWITCH LOCATION TO PROVIDE MINIMUM 3 FT WORKING CLEARANCE AND NOT BLOCK ANY ROOFTOP UNIT ACCESS PANELS.
8. NEW ROOFTOP EXHAUST FAN, SEE MECHANICAL PLANS. PROVIDE NEW WEATHERPROOF MANUAL MOTOR STARTING SWITCH THERMAL PROTECTION, AND NEW ELECTRICAL SERVICE AS SHOWN. SEE SHEET E-103 FOR CONDUIT PENETRATION THROUGH ROOF.
9. NEW F-1 FIXTURE MOUNTED ON NEW SCREEN WALL, SEE DETAIL C1/E-104. SEE SHEET E-102 FOR CONTINUATION OF NEW CIRCUIT.
10. PROVIDE NEW PHOTOCELL TO CONTROL NEW F-1 FIXTURES. INSTALL ON FIXTURE JUNCTION BOX AS SHOWN ON DETAIL C1/E-104.

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PROJECT TITLE:
Ogden Armory-Roofing Improvements

OWNER:
State of Utah-DFCM
Utah National Guard
Salt Lake City, Utah

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCUMENTS
ISSUE DATE: JAN. 30, 2006
DFCM PROJECT NO: 05040470
CONTRACT NO: 057039
CAD PROJECT NO: N/A
CAD DWG FILE: E-104.dwg
ARCH PROJECT FILE: 0505.pj\0505.db\cps.dr
DRAWN BY: W.B.G.
CHK'D BY: R.G.K.

SHEET TITLE
ROOF ELECTRICAL PLAN, DETAILS, AND SCHEDULES

SHEET NUMBER
E-104

NEW PANEL 'BR'
TYPE 'NQOD', BOLT ON
3 POLE 225 AMP MAIN LUGS

22,000 A.I.C., SERIES OR FULLY RATED
120/208 VOLT, 3 PHASE, 4 WIRE
SURFACE MOUNTED

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	LTS, MEDICAL DET. *	8		1,600	2,700			1,100		7	LTS, BOILER RM & HALL *	1	20	2
3			LTS, MECICAL DET. *	4		800		1,700		900		6	LTS, STORAGE *			4
5			LTS, STORAGE *	6		900			1,900	1,000		1	LTS, STORAGE *			6
7			LTS, STORAGE *	1		1,000	1,300			300		2	LTS, OUTSIDE FRONT DOOR *			8
9			REC, LOWER LEVEL *		7	1,260		1,860		600		4	LTS, DMS PARKING *			10
11			EXISTING - VERIFY *			1,000			1,500	500			UH CIRC PUMP *			12
13			EXIT LIGHTS +			1,000	2,000			1,000			EXISTING - VERIFY *			14
15			SPARE					500		500			BOILER CONTROL (BURNER) *			16
17			SPARE						1,500	1,500			SUMP, AIR COMP & CIRC *			18
19			SPARE				500			500			BOILER & DDC CONTROLLER +			20
21			SPARE					0					SPARE			22
23	1	20	REC, BELOW PANEL		1	180			180				SPARE			24
25	3	15	MAIN CIRCULATING PUMP *			830	830						SPARE	1	20	26
27	-	-	-			830		4,830		4,000			EXISTING - VERIFY +	2	60	28
29	-	-	-			830			4,830	4,000			-	-	-	30
31	2	40	EXISTING - VERIFY +			3,000	3,000						SPACE	1		32
33	-	-	-			3,000		3,000								34
35	1		SPACE						0							36
37							0									38
39								0								40
41	1		SPACE						0				SPACE	1		42
							10,330	11,890	9,910							

TOTAL CONNECTED LOAD: 32,130 VA 89 AMPS
CALCULATED FEEDER DEMAND, NEC 220: 35,678 VA 99 AMPS FEEDER: 4 #3/0, 1 #4 GND, 2" C

* EXISTING CIRCUIT TO BE RECONNECTED FROM EXISTING PANEL 'BR' TO NEW PANEL 'BR'. LOAD IS ESTIMATED
+ EXISTING CIRCUIT CONNECTED TO SEPARATE SAFETY SWITCH OR BREAKER. EXTEND CIRCUIT TO NEW PANEL 'BR'. LOAD IS ESTIMATED.

FIELD VERIFY LOAD SERVED BY ALL EXISTING CIRCUITS AND INDICATE ON NEW TYPEWRITTEN PANEL INDEX.

NEW PANEL 'H'
TYPE 'NQOD', BOLT ON
3 POLE 225 AMP MAIN LUGS

10,000 A.I.C., FULLY RATED
120/208 VOLT, 3 PHASE, 4 WIRE
SURFACE MOUNTED

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	1	20	FLAGPOLE LIGHTS ON ROOF	2		260	260						SPARE	1	20	2
3			SPARE					0					SPARE			4
5			SPARE						0				SPARE			6
7			SPARE				0						SPARE			8
9			SPARE					0					SPARE			10
11	1	20	REC, LOW ROOF AC UNITS		3	540			1,080	540	3		REC, MID ROOF AC UNITS	1	20	12
13	3	25	RTU-1, EAST LOW ROOF			2,245	4,900			2,655			RTU-6, EAST MID ROOF	3	30	14
15	-	-	-			2,245		4,900		2,655			-	-	-	16
17	-	-	-			2,245			4,900	2,655			-	-	-	18
19	3	30	RTU-2, CENTER LOW ROOF			2,655	5,740			3,085			RTU-5, CENTER MID ROOF	3	35	20
21	-	-	-			2,655		5,740		3,085			-	-	-	22
23	-	-	-			2,655			5,740	3,085			-	-	-	24
25	3	35	RTU-3, WEST LOW ROOF			3,085	6,170			3,085			RTU-4, WEST MID ROOF	3	35	26
27	-	-	-			3,085		6,170		3,085			-	-	-	28
29	-	-	-			3,085			6,170	3,085			-	-	-	30
31	1		SPACE				0						SPACE	1		32
33								0								34
35									0							36
37							0									38
39								0								40
41	1		SPACE						0				SPACE	1		42
							17,070	16,810	17,890							

TOTAL CONNECTED LOAD: 51,770 VA 144 AMPS
CALCULATED FEEDER DEMAND, NEC 220: 54,149 VA 150 AMPS FEEDER: 4 #3/0, 1 #4 GND, 2" C

NEW PANEL 'M'
TYPE 'I-LINE'
3 POLE 800 AMP MAIN LUGS

22,000 A.I.C., FULLY RATED
120/208 VOLT, 3 PHASE, 4 WIRE
SURFACE MOUNTED

CIR NO.	BRKR P	BRKR AMPS	DESCRIPTION	NO. LTS	NO. REC	CIRCUIT LOAD	PHASE LOAD - VA PHASE A	PHASE B	PHASE C	CIRCUIT LOAD	NO. REC	NO. LTS	DESCRIPTION	BRKR P	BRKR AMPS	CIR NO.
1	3	100	SPACE				5,730			5,730			PANEL 'E' *	3	70	2
	-	-	-					4,580		4,580			(NORTH BALCONY)	-	-	
	-	-	-						4,580	4,580			-	-	-	
3	3	90	PANEL 'D' *			9,810	16,320			6,510			PANEL 'C' *	3	70	4
	-	-	(SOUTH BALCONY)			8,430		13,870		5,440			(SOUTH MAIN LEVEL)	-	-	
	-	-	-			7,580			12,100	4,520			-	-	-	
5	3	100	SPACE				0						SPACE	3	100	6
	-	-	-					0					-	-	-	
	-	-	-						0				-	-	-	
7	3	125	PANEL 'A' *			10,460	26,560			16,100			PANEL 'B' *	3	175	8
	-	-	(EAST MAIN LEVEL)			11,000		24,510		13,510			(NORTH MAIN LEVEL)	-	-	
	-	-	-			11,720			26,390	14,670			-	-	-	
9	3	200	NEW PANEL 'H'			17,070	33,770			16,700			PANEL 'G' *	3	200	10
	-	-	-			16,810		34,310		17,500			(SHOP BUILDING)	-	-	
	-	-	-			17,890			30,090	12,200			-	-	-	
11	3	200	PANEL 'BR'			10,330	10,330						SPACE	3	225	12
	-	-	(BOILER ROOM)			11,890		11,890						-	-	
	-	-	-			9,910			9,910				-	-	-	
13	3	225	SPACE				0						SPACE	3	225	14
	-	-	-					0					-	-	-	
	-	-	-						0				-	-	-	
							92,710	89,160	83,070							

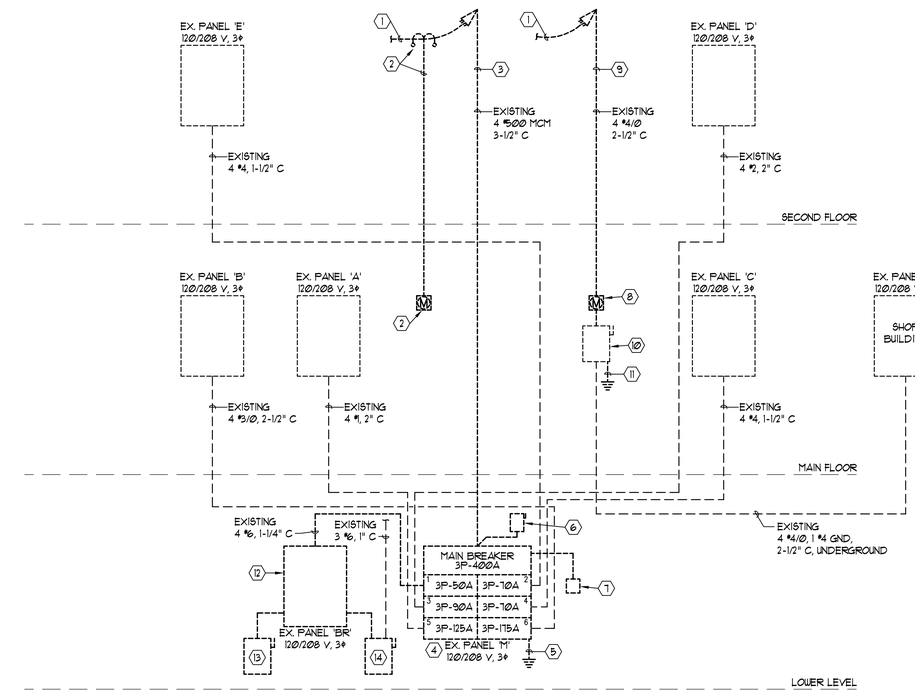
TOTAL CONNECTED LOAD: 264,940 VA 735 AMPS FEEDER: 8 #500 KCM, 2 #1/0 GND, (2) 3-1/2" C
CALCULATED FEEDER DEMAND, NEC 220.87: 157,762 VA 438 AMPS

* ESTIMATED LOAD FOR EXISTING PANELS BASED ON ORIGINAL BUILDING ELECTRICAL PLANS

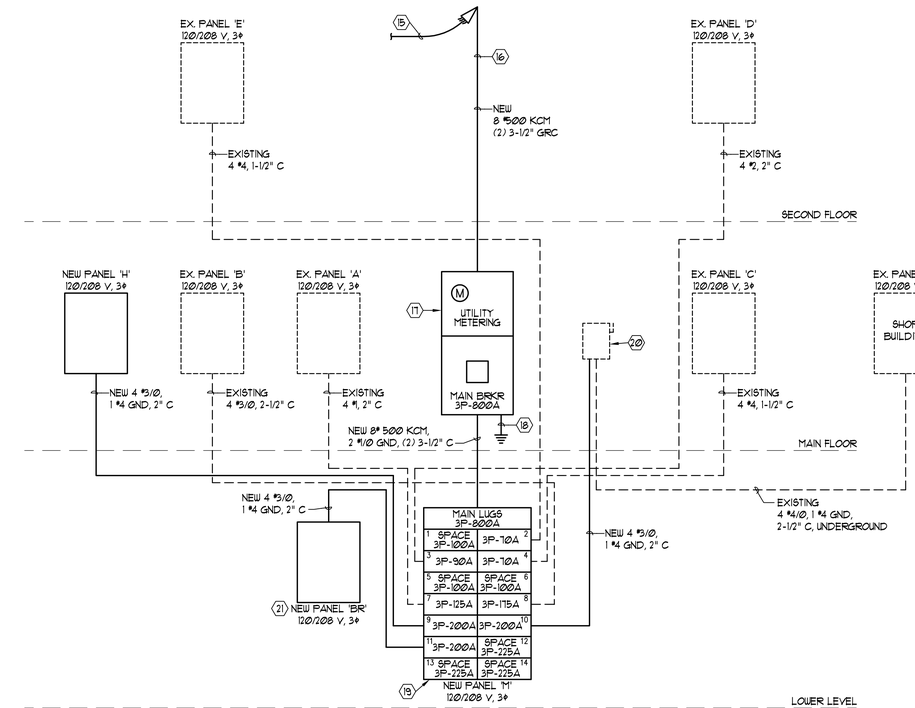
ELECTRICAL LOAD CALCULATION

LOAD DESCRIPTION	CONNECTED LOAD - VA	DEMAND FACTOR	CALCULATED DEMAND - VA	2005 NEC REFERENCE	NOTES
EXISTING BUILDING DEMAND: 38 KW AT ESTIMATED 90% PF	42,222	125%	52,778	220.87	1
NEW FLAGPOLE FLOODLIGHTS	260	125%	325	215.3	
NEW RECEPTACLES	1,260	>10 KVA @ 50%	1,260	220.44	
LARGEST NEW MOTOR (RTU-3)	9,255	125%	11,569	430.24	
OTHER NEW MOTORS (RTUs)	41,175	100%	41,175	430.24	
NEW EXHAUST FAN EF-1, 1/6 HP	530	100%	530	430.24	
EXISTING PANEL 'G'	46,400		50,125	220.40	2
TOTAL LOADS	141,102 VA		157,762 VA		
	392 AMPS		438 AMPS		
MINIMUM REQUIRED SERVICE SIZE:			450 AMPERE		
NEW SERVICE SIZE:			800 AMPERE		3

NOTES:
1. MAXIMUM 38 KW DEMAND FROM POWER COMPANY FOR PERIOD JUNE 2004 THROUGH MAY 2005 AT ESTIMATED 90% POWER FACTOR.
2. SHOP BUILDING PANEL 'G' RECONNECTED FROM EXISTING SEPARATE SERVICE TO NEW ELECTRICAL SERVICE.
3. NEW 800 AMPERE SERVICE PROVIDED TO ALLOW FUTURE ELECTRICAL LOAD ADDITIONS.



C3 EXISTING POWER RISER DIAGRAM
SCHEMATIC



A3 NEW POWER RISER DIAGRAM
SCHEMATIC

GENERAL NOTES:

1. LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON EXISTING BUILDING ELECTRICAL DRAWINGS AND FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, JUNCTION BOXES, OUTLETS, EQUIPMENT, ETC., WHETHER SPECIFICALLY SHOWN OR NOT.
3. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE REPAIRS WITH THE GENERAL CONTRACTOR.
4. COORDINATE INSTALLATION OF NEW ELECTRICAL SERVICE AND METERING WITH LOCAL POWER COMPANY PRIOR TO BEGINNING WORK.
5. POWER OUTAGES TO THE EXISTING BUILDINGS WILL NOT BE ALLOWED EXCEPT AS DIRECTED BY OWNER. SUBMIT REQUESTS FOR POWER OUTAGES TO THE OWNER MINIMUM SEVEN (7) DAYS PRIOR TO ANY PROPOSED POWER OUTAGES. DO NOT TAKE ANY POWER OUTAGES WITHOUT OWNER'S PERMISSION.

KEYED NOTES:

1. EXISTING OVERHEAD SERVICE CABLE TO BE REMOVED BY POWER COMPANY.
2. EXISTING CURRENT TRANSFORMERS AND METER TO BE REMOVED BY POWER COMPANY. CONTRACTOR TO REMOVE ALL EXISTING WIRING, CONDUIT, AND ENCLOSURES ASSOCIATED WITH EXISTING METERING.
3. REMOVE EXISTING SERVICE CONDUCTORS, WEATHERHEAD, ACCESSIBLE CONDUIT, ETC., COMPLETE. EXISTING CONDUIT CONCEALED IN EXTERIOR BRICK WALL MAY BE ABANDONED IN PLACE. PROVIDE CAP ON EXPOSED CONDUIT ON BUILDING EXTERIOR. PAINT EXISTING EXTERIOR EXPOSED CONDUIT TO MATCH WALL.
4. REMOVE EXISTING 400 AMPERE MAIN PANEL 'M'. RETAIN EXISTING PANEL FEEDERS AS REQUIRED FOR CONNECTION TO NEW PANEL 'M'.
5. REMOVE EXISTING #1/0 GROUNDING ELECTRODE CONDUCTOR. RECONNECT EXISTING BONDING CONNECTIONS TO MECHANICAL PIPING TO NEW GROUND BUS IN NEW METERING SWITCHBOARD.
6. REMOVE EXISTING 1P-20A FUSED SAFETY SWITCH FOR EXIT LIGHT CIRCUIT AND RECONNECT TO NEW PANEL 'BR'.
7. REMOVE EXISTING 1P-20A ENCLOSED CIRCUIT BREAKER FOR BOILER CONTROL PANEL AND RECONNECT TO NEW PANEL 'BR'.
8. EXISTING METER TO BE REMOVED BY POWER COMPANY. CONTRACTOR TO REMOVE EXISTING 200 AMPERE METER SOCKET.
9. REMOVE EXISTING SERVICE MAST AND CONDUCTORS COMPLETE. REPAIR EXISTING EXTERIOR BRICK WALL AS REQUIRED TO MATCH SURROUNDING SURFACES.
10. EXISTING 3P-200A, NEMA 3R, FUSED SAFETY SWITCH TO REMAIN. PROVIDE NEW CLOSURE PLATE IN TOP OF ENCLOSURE WHERE EXISTING OVERHEAD SERVICE CONDUIT IS REMOVED.
11. REMOVE EXISTING #2 GROUNDING ELECTRODE CONDUCTOR COMPLETE INCLUDING ABANDONED CONDUIT.
12. REMOVE EXISTING PANEL 'BR' AND FEEDER. RETAIN EXISTING BRANCH CIRCUITS FOR CONNECTION TO NEW PANEL 'BR' AT THE SAME LOCATION. SALVAGE EXISTING CIRCUIT BREAKERS FOR OWNER AND PLACE IN STORAGE AS DIRECTED BY OWNER.
13. REMOVE EXISTING 2P-40A FUSED SAFETY SWITCH. RECONNECT EXISTING CIRCUIT TO NEW PANEL 'BR'. FIELD VERIFY LOAD SERVED AND INCLUDE ON NEW PANEL INDEX.
14. REMOVE EXISTING 2P-60A FUSED SAFETY SWITCH. RECONNECT EXISTING CIRCUIT TO NEW PANEL 'BR'. FIELD VERIFY LOAD SERVED AND INCLUDE ON NEW PANEL INDEX.
15. NEW OVERHEAD SERVICE CABLE BY POWER COMPANY.
16. NEW OVERHEAD SERVICE CONDUITS, WEATHERHEADS, AND CONDUCTORS BY CONTRACTOR. LEAVE SUFFICIENT SLACK CONDUCTOR FOR CONNECTION TO NEW OVERHEAD SERVICE CABLES.
17. NEW UTILITY METERING SWITCHBOARD, 800 AMPERE, 120/208 V, 3φ, 4W, MINIMUM 22,000 A.I.C., WITH SERVICE ENTRANCE LABEL. SEE SPECIFICATION SECTION 16470.
18. NEW #3/0 GROUNDING ELECTRODE CONDUCTORS TO NEW GROUND RODS AND EXISTING WATER MAIN. SEE ELECTRICAL PLANS, SHEET E-101.
19. INSTALL NEW PANEL 'M' TO REPLACE EXISTING PANEL 'M' AND RECONNECT ALL EXISTING PANELBOARD FEEDERS AS INDICATED.
20. EXISTING 3P-200A, NEMA 3R, FUSED SAFETY SWITCH TO REMAIN. PROVIDE NEW FEEDER TO NEW PANEL 'M' AS INDICATED.
21. INSTALL NEW PANEL 'BR' TO REPLACE EXISTING PANEL 'BR' AND RECONNECT ALL EXISTING BRANCH CIRCUITS. EXTEND AND RECONNECT EXISTING CIRCUITS SERVED BY SEPARATE SAFETY SWITCHES AND ENCLOSED BREAKERS INDICATED ON EXISTING POWER RISER DIAGRAM. SEE PANEL SCHEDULE, THIS SHEET, FOR QUANTITY OF EXISTING CIRCUITS.

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DFCM PROJECT NO:	05040470
CONTRACT NO:	057039
CAD PROJECT NO:	N/A
CAD DWG FILE:	E-601.dwg
ARCH PROJECT FILE:	0505.pj\0505.db\cps.dr
DRAWN BY:	W.B.G.
CHK'D BY:	R.G.K.
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SHEET TITLE

POWER RISER DIAGRAMS AND PANEL SCHEDULES

SHEET NUMBER

E-601

SHEET OF